

Part 105 Parachute Jumping

This edition replaces the existing loose-leaf
Part 105 and its changes.

This FAA publication of the basic Part 105, effective February 26, 1963,
incorporates Amendments 105-1 through 105-10 with preambles.

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PART 105

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A notice of proposed rule making, published in the Federal Register on April 28, 1962 (27 F.R. 4099) and circulated as Draft Release No. 62-19, gave notice that the Federal Aviation Agency had under consideration a proposal to adopt a new Part 38 of the Civil Air Regulations governing nonemergency parachute jumping. The notice also proposed to amend § 43.47(b) of Part 43 of the Civil Air Regulations to make Part 38 the governing rule for nonemergency parachute jumping.

In order to avoid the issuance of a new Part of the Civil Air Regulations and then its immediate reissuance in a recodified form, this amendment is issued as a part of the program of the Federal Aviation Agency to recodify its regulatory material. In the "Outline and Analysis" for the proposed recodification, contained in Draft Release 61-25 and published in the Federal Register on November 15, 1961 (26 F.R. 10698), provision was made for a new Subchapter F "Air Traffic and General Operating Rules". This amendment, as the first final rule to be published in that subchapter, adds the new Subchapter F to Chapter I of Title 14. Other new Parts will be added to the subchapter at a later date in conformity with the "Outline and Analysis".

The rules in Part 105 are directed primarily to three major areas of concern with respect to parachute jumping. They are: (1) jumps over or within the congested areas of cities, towns, settlements, or an open air assembly of persons; (2) jumps made in controlled airspace; and (3) parachute equipment requirements. In addition, the Part prescribes certain basic operating rules.

The majority of comments received in response to the notice were favorable. Some expressed approval of the proposed rules as they were written and others recommended various changes. The significant changes which have been made, and the reasons why some recommended changes were not made are discussed in the following paragraphs.

The Department of the Army expressed general approval of the intent of the proposed rules but pointed out that some of their training activities are conducted outside of military reservations and restricted areas, during hours of darkness, and under poor weather conditions. It was explained that compliance with the proposed rules relating to clearance from clouds, weather conditions, and jumps at night, would seriously detract from the practical value of the military training conducted. The Department of the Air Force also objected to the restrictions placed on military operations in controlled airspace. The new Part has been modified to reflect these comments. The provisions governing clearance from clouds, flight visibility, and jumps at night do not apply to a member of an Armed Force when jumping in restricted areas under the control of an Armed Force or to jumps made during military operations in uncontrolled airspace.

Section 105.11 exempts from the operating rules of Subpart B a parachute jump made because of an emergency on the surface when the jump is made at the direction, or with the approval, of an agency of the Federal, State, or local government. However, the parachute equipment requirements of Subpart C would apply to the jump. An example of the type of emergency the section contemplates would be a natural disaster requiring parachute jumps to aid victims.

A number of comments recommended that a jumper be required only to give notification to Air Traffic Control, instead of obtaining an authorization, for jumps in certain controlled airspace outside control zones. It was pointed out that as jumps are required to be made in VFR weather conditions an authorization is unnecessary. The FAA recognizes the validity of this argument and Part 105 requires an authorization for jumps in certain control zones and in positive controlled airspace, but only notification elsewhere in controlled airspace. Further, it provides that notice need be given only six hours in advance of the jump.

In response to comments, the proposed requirement that an application for an authorization to jump over a congested area be made seven days in advance has been reduced to four days. The 24-hour requirement for jumps in positive control airspace has been retained to meet the requirements of Air Traffic Control.

value of jumps through or from within clouds, and Part 105.29. The proposed minimums represent the minimums needed for safety and they have been retained. The specific prohibition against jumping through clouds has been dropped to avoid any misunderstanding of the requirement that the jumper must, at all times, remain clear of clouds by the distances specified in § 105.29.

Several recommendations were made to relax the requirements of § 38.20 regarding who may pack a parachute. It was also recommended that the proposed 60-day packing period be increased for both the main and the auxiliary parachutes. The Agency believes that the 60-day packing period for the main parachute can be extended to 120 days without adversely affecting safety and the rule has been changed accordingly. However, we do not believe that any relaxation is possible, at this time, with respect to who may pack a parachute and the packing period for auxiliary parachutes.

Recommendations were received that proposed § 38.22, relating to repairs, maintenance, alteration, and inspection of parachutes, be changed to permit anyone engaged in nonemergency parachute jumping to repair, maintain, or alter the harness and the main parachute provided that the work be approved by a certificated parachute rigger. The Agency does not believe that this should be permitted. In support of this position, the Agency cites several comments received calling attention to substandard and sometimes dangerous repairs and alterations made to parachute canopies and harnesses by inexperienced or unskilled persons. No specific statement regarding repairs and alterations is included in Part 105 because this matter is presently covered by § 65.11 of Part 65 [New] of the Federal Aviation Regulations.

Comments pointed out the absence of any prohibition of jumping in or into restricted or prohibited areas or jumping while under the influence of intoxicating liquor or drugs. Pilots are presently prohibited from carrying any person in the aircraft who is under the influence of intoxicating liquors or drugs, except medical patients or in an emergency. Pilots are also prohibited from operating an aircraft in prohibited or restricted areas without permission from appropriate authority. To prohibit jumping under the influence of intoxicating liquor or drugs, or in or into a prohibited or restricted area without the permission of the controlling agency of that area, would not impose a substantial burden on any one and is required in the interest of safety. Therefore, additional notice and public procedure are unnecessary and these prohibitions are included in Part 105 [New].

Another comment pointed out that while the preamble to the draft release proposed that the jumper as well as the pilot should be responsible for not creating a hazard to other aircraft in the area and to persons and property on the surface, there was no specific provision for this in the rule itself as proposed. This requirement is now contained in § 105.13.

Many comments were received suggesting additional regulations relating to the safety of the jumper himself, such as training requirements, minimum jump and canopy opening altitudes, maximum wind velocities, and flotation equipment for jumps near water. Many favorable references were made to the treatment of such matters in the regulations and requirements of the Parachute Club of America. The Agency is presently evaluating these suggestions and anticipates the early issuance of a notice of proposed rule making in this area.

The definitions, abbreviations, and rules of construction contained in Part 1 [New] of the Federal Aviation Regulations apply to new Subchapter F.

Interested persons have been afforded an opportunity to participate in the making of this regulation and due consideration has been given to all relevant matters presented. The Agency is particularly appreciative of the cooperative and constructive spirit in which the public's comments were submitted.

In consideration of the foregoing, effective February 26, 1963, Chapter I of Title 14 of the Code of Federal Regulations is amended by adding Subchapter F, "Air Traffic and General Operating Rules" [New] reading as hereinafter set forth, and by revising § 43.47(b) of Part 43 of the Civil Air Regulations to read as follows:

§ 43.47 *Dropping objects or persons.*

Intentional Parachute Jumping

Adopted: October 22, 1964

Effective: December 4, 1964

(Published in 29 F.R. 14919, November 4, 1964)

The purpose of this amendment to Part 105 [New] of the Federal Aviation Regulations is to permit a person making an intentional parachute jump to drift over a congested area, an open air assembly of persons, or an airport, with an opened parachute if he is at a sufficient altitude to avoid creating a hazard to air traffic or to persons or property on the ground. This action was published as a notice of proposed rule making and circulated as Federal Aviation Notice 64-15 (29 F.R. 3584), issued March 13, 1964.

Present § 105.15 [New] of the Federal Aviation Regulations prohibits an intentional parachute jump when it is made "over or into a congested area of a city, town, or settlement, or an open air assembly of persons unless a certificate of authorization for that jump has been issued. . ." A parachute jump is defined by § 105.1(b) so that it includes the use of a parachute "during all or part of that descent." Therefore, "drifting over" a congested area or open air assembly with an opened parachute is prohibited by § 105.15 unless an authorization has been issued by the local FAA District Office.

The Agency proposed in Notice 64-15 to relax the regulations, not only with regard to § 105.15, but also § 105.17, that pertains to jumps over or onto airports. Comments on the proposal indicated concern as to whether the proposed relaxation would apply to other airspace. The requirements of § 105.19 (control zone with control tower), § 105.21 (positive control area or positive control route segment), § 105.23 (other controlled airspace), and § 105.27 (restricted or prohibited areas) are not relaxed. This amendment to §§ 105.15 and 105.17 only relaxes the rule as it pertains to "drifting over" a congested area, an open air assembly, or an airport that does not have a functioning control tower operated by the United States. It does not modify the other requirements of Part 105 [New].

Section 105.17 has also been rewritten to make it clear that the airport management must give approval of a parachute jump over an airport that does not have a functioning control tower, as well as onto any airport.

Jumping into or through a cloud is already prohibited by §§ 105.29 and 105.31, but the lead-in clause to § 105.29 is rewritten to state that prohibition more specifically.

Comments to the proposal also expressed concern as to what was meant by a "sufficient altitude" for drifting over an airport that does not have a functioning control tower operated by the United States. Therefore, the regulation has been rewritten to state that an intentional parachutist may not drift over that airport unless he does so at least 2,000 feet above the airport's traffic pattern.

Interested persons have been afforded an opportunity to participate in the making of this amendment and due consideration has been given to all relevant matters presented.

In consideration of the foregoing, Part 105 [New] of the Federal Aviation Regulations is amended, effective December 4, 1964, as follows.

This amendment is issued under the authority of sections 307, 313(a) and 601 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, 1421).

of information about known air traffic in the vicinity before the jumping occurs, the maintenance of a continuous watch, and advice to ATC when the jumping has ended; (2) modify the required notification time elements (where presently required) for jumps in or into controlled airspace, and require notification of jumps in or into uncontrolled airspace; and (3) add to the required information (in a request for authorization or notice of jumping activity) notice of cancellation or postponement, and certain information relative to the jump zone.

On September 7, 1965, Advance Notice of Proposed Rule Making and Notice of Public Hearing (Notice 65-23) was issued inviting the views of all interested persons on certain requests for rule making presented by two associations, one representing air carriers and the other representing airline pilots. Those proposals principally would have prohibited nonemergency parachute jumps within federally controlled airspace and in or into approved off-airways routes outside of controlled airspace, and would have required notification of jumps in or into uncontrolled airspace (other than approved off-airways routes) and two-way radio and contact with the ATC facilities used. At the public hearing held on November 4, 1965, views were expressed both for and against those proposals.

The positions of all persons who filed comments in response to Notice 65-23 or appeared at the public hearing and all other available data were evaluated, and rule making was proposed in Notice 66-18 issued on May 6, 1966 and published in the Federal Register on May 12, 1966 (31 F.R. 6988). Disposition is now made of those proposals by these amendments.

(1) It was proposed in Notice 66-18 to require, for jumps within controlled airspace, a functioning two-way radio communications system in the jump aircraft appropriate to the ATC facilities to be used, unless otherwise authorized by ATC. As stated in the notice, under Part 105 there has been a gap in knowledge relating to the probability of a jump or series of jumps taking place when a pilot passes through a jumping location identified by notification procedures, and dissemination of information thus obtained. Ability to supply useful, timely information depends on ability to communicate. The Agency has concluded that for jumps in or into controlled airspace two-way radio communications between the jump aircraft and ATC facilities are necessary to provide this information, unless ATC determines that in a particular situation other communications are appropriate.

Comments on Notice 66-18 generally approved the proposals that would require a two-way radio communications system, that the pilot in command of the jump aircraft have a continuous watch maintained on the appropriate radio frequency, and that the jumping activity be abandoned if the radio communications system becomes inoperative. Some comments would limit these requirements to "exhibition" or "demonstration" jumps only, and would refrain from imposing them in the case of regular jumping activities conducted in identified jumping areas or centers. However, no reasons were presented for a distinction of this character. A few comments objected to the two-way radio requirement because of the cost. The cost element of course is presented, but the communications requirement is an essential element adopted for the achievement of the safety objectives sought by this rule making and a feasible and reasonable method of doing so.

These amendments adopt the radio equipment requirements proposed by Notice 66-18, as refined to set forth standard conditions that ordinarily could be expected to appear as communications requirements in authorizations that would have been issued under the original proposal. Thus, new § 105.14 requires the establishment of radio communications between the jump aircraft and ATC at least 5 minutes before the jumping activity is to begin, for the purpose of receiving information in the aircraft from ATC about known air traffic in the vicinity, and requires further the receipt of that information. Also, new § 105.14 requires the pilot in command of the jump aircraft to maintain or have maintained a continuous watch on the appropriate frequency from the time radio communications are first established until he advises ATC (as also required) that the jumping activity is ended for that flight.

(2) It was proposed in Notice 66-18 to require authorization for all nonemergency parachute jumps in or into controlled airspace, instead of notification where previously required under part 105. Although some comment concurred with the notice in its entirety, this proposal elicited strong objections from

already present under notification procedures. The argument even was presented that ATC personnel, under pressure to make decisions, could arbitrarily refuse authorizations and thus effectively prohibit all parachuting activities. This invalidly assumed that Agency personnel would fail to perform their responsibilities properly.

Upon reconsideration of the matter in light of the comments received, the Agency has concluded that the safety objectives of Notice 66-18 may be served by retaining the present notification provisions of § 105.23, as refined by these amendments, in conjunction with the new requirements on radio communications. The requirement for establishment of radio communications and receipt of information (instead of authorization) provides the safety measure sought by the notice, that stated the need for satisfactory information and arrangements for communications with respect to the time and place of contemplated jumps. Flexibility in this respect is preserved by the provision that ATC may authorize communications arrangements other than those spelled out in § 105.14. Also, a provision is added to § 105.23 to accommodate regular jumping activities of organizations in identified jump zones, as sought in one form or another by some comments. Under this provision, long-term scheduled jumping in a specified jump zone may be conducted after acceptance by ATC of written notification submitted by a parachute jumping organization at least 15 days, but not more than 30 days, before the jumping is to begin. The preamble of the notice stated that if a series of jumps is contemplated rather than a single jump a single request and authorization would suffice. Section 105.25 as now amended clarifies this by providing the information required for an authorization or a notification may apply to either an individual or group activity.

A change introduced in § 105.23 is the reduction to 1 hour, instead of 6, as the minimum notification period. The need for so long a minimum period as 6 hours was questioned by a number of comments. Also, it was asserted that it was often not possible to know, 6 hours ahead of time, elements of required notice such as altitudes, and specific time of jumping. The Agency has concluded that a 1-hour notice is sufficient.

In this connection, the Agency also has concluded that the 24-hour minimum period for requesting authorization for jumps in or into positive control areas is not needed. This requirement therefore is eliminated by these amendments, along with the reference to "positive control route segments," that no longer exist.

(3) It was proposed in Notice 66-18 to require notification of parachute jumps in or into uncontrolled airspace. These amendments incorporate that proposal, on which the comment was favorable.

(4) It was proposed in Notice 66-18 to require notification of the cancellation of any contemplated jumping activity for which authorization has been requested or notification given. These amendments accomplish this in new paragraph (b) of § 105.25, including also the requirement (as suggested by comment) that notification be required in case of postponement of proposed jumping activity. The latter provision accommodates situations where, for instance, weather conditions delay jumping for an hour or two and a new notice would be impractical, or when notified schedules are altered. Section 105.25(a) also is clarified by requiring more precise description of the jump zone in terms of size and in relation to the nearest VOR facility 30 nautical miles or less from the jump zone, otherwise in relation to the nearest airport, town or city.

(5) It was proposed in Notice 66-18 to prohibit parachute jumps by any person within 8 hours after the consumption of any alcoholic beverage. The proposal would have incorporated in Part 105 the 8-hour rule proposed by Notice 65-34 for Part 91 of the Federal Aviation Regulations (General Operating and Flight Rules), in order to retain conformity between the two Parts in the area of prohibitions concerning liquor and drugs. However, final action on Notice 65-34 has not been taken and accordingly the proposed provision has been omitted from these amendments to Part 105, subject to later addition if the regulatory action proposed by Notice 65-34 is adopted.

A number of comments contained recommendations that went beyond the scope of the notice. Thus, it was recommended that in airspace, controlled or uncontrolled (other than control zones with functioning

for 3 miles); and that flight visibility specified in § 105.31(b) be increased to 5 miles from 3 miles, as now required, outside of the continental control area. It also was recommended that there be published a standard definition of a parachuting drop zone in terms of area and altitude. However, the Agency believes the notifier should advise the dimensions required for his activity. Again, it was recommended that a VFR flight plan be used instead of the proposed authorization. However, a flight plan would not be appropriate, since the concern is with the jumping, not the flight of the aircraft. Several others of these recommendations were concerned with non-regulatory matters, such as charting jump sites, or requesting airfields not controlled by FAA towers but possessing UNICOM or MULTICOM capability to add the phrase "Parachuting operations in progress" to transmissions to aircraft entering their area when those operations are in progress.

For the reasons stated herein, it is believed that the issuance of these amendments, whose objective is to provide additional safeguards for both the jumper and other air traffic, is in the public interest.

Interested persons have been afforded an opportunity to participate in the making of these amendments, and due consideration has been given to all matter presented.

In consideration of the foregoing, Part 105 of the Federal Aviation Regulations is amended, effective March 24, 1967.

These amendments are made under the authority of sections 307, 313(a), and 601 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, 1421),

NOTE: The recordkeeping and reporting requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

Amendment 105-3

Assist Device for Static Line Parachute Jumps

Adopted: June 3, 1968

Effective: August 7, 1968

(Published in 33 F.R. 8480, June 8, 1968)

The purpose of this amendment to Part 105 of the Federal Aviation Regulations is to require a parachute jumper to use an assist device, in static line parachute jumps, to aid the pilot chute in performing its function, or, if no pilot chute is used, to aid in the direct deployment of the main parachute canopy.

This amendment was proposed in Notice 67-41 and published in the Federal Register on September 28, 1967 (32 F.R. 13595). The public comments received on the notice were almost uniformly in favor of the proposal, but suggested a number of technical changes of merit, consistent with the proposal. With the changes indicated, this amendment is now issued for the reasons stated in Notice 67-41, to more positively assure deployment of the main parachute canopy in static line parachute jumps, and consequently assure a higher level of safety.

Some comments asserted that it is not practical to place responsibility on the pilot in command to assure that a "breakaway" device is installed in the required manner, since in most cases it would be necessary to unpack and repack the parachute pack in order to determine that the device has been attached. Accordingly, the requirement of pilot-in-command responsibility has been omitted from this amendment.

Some comments pointed out that the language of the rule as proposed would bar the use of more than one type of static line configuration, by confining its applicability to a configuration using static line pins inserted through the pack cones. Other static line configurations, commonly known as the "California" type, do not use static line pins. Accordingly, the language used in this amendment accommodates other configurations as well as those using pins. Comments also questioned the requirement that one

strength of a single piece of the material used. Second, the comments afforded additional information indicating that the use of break-strength limits of 40 to 80 pounds has been the common practice where pilot chutes are used, and that therefore the proposed minimum of 80 pounds appears to be undesirably high and not necessary. Many jump masters hold a bight of the static line so that they may pull the static line and open the pack as soon as they determine that the jumper is assuming a potentially hazardous body position after leaving the aircraft. A minimum 80-pound breaking strength appears too high for this practice. A breaking tensile strength of 40 pounds (before allowance for reduction caused by knots or functional variations in mated adhesive surfaces) has been found effective. This lower limit of 40 pounds is used in the amendment, reduced by 30 percent to allow for the factors just mentioned, to an actual lower limit of 28 pounds as the minimum static load strength. Consistently, the amendment fixes a lower strength limit of 56 pounds (80 pounds less 30 percent allowance for the same factors mentioned above), if a pilot chute is not used. It also appears that a maximum 400-pound breaking strength is unrealistically high, if a pilot chute is used, and even more so of a pilot chute is not used. It is possible to simplify the amendment, as compared with the notice, by distinguishing only between parachutes that are equipped with pilot chutes and those that are not. A separate condition applicable to "deployment" sleeves (the name preferred to "safety" sleeves) appears unnecessary. Upon additional consideration, it has been determined to lower the maximum strength limit to 320 pounds (four times the single tensile strength of an 80-pound tape obtained by using two complete loops, a common practice) for parachutes that are not equipped with pilot chutes, and to 160 pounds for parachutes that are equipped with pilot chutes.

Finally, in response to comment urging that only qualified persons should be allowed to attach the assist device to the static line and parachute, this amendment incorporates a clarification by specifically providing that no person may attach the device unless he has a current parachute rigger certificate issued under Part 65 or is the person who makes the jump with the parachute. This is consistent with the general prohibitions of § 65.111(b) on who may pack, maintain, or alter main parachutes used for intentional jumping in connection with civil aircraft of the United States, and the exception, is that provision, that a jumper may pack his own main parachute.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all matter presented.

In consideration of the foregoing, § 105.43 of the Federal Aviation Regulations is amended, effective August 7, 1968, by redesignating paragraph (b) as paragraph (d), and inserting new paragraphs (b) and (c) after paragraph (a).

These amendments are issued under the authority of sections 307, 313(a), and 601 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354(a), 1421).

Amendment 105-4

Elimination of Requirement for U.S. Armed Forces to Furnish

Notice of Parachute Jumping within Restricted Airspace

Adopted: August 15, 1968

Effective: September 21, 1968

(Published in 33 F.R. 11901, August 22, 1968)

The purpose of this amendment to the Federal Aviation Regulations is to eliminate the requirement for elements of the U.S. Armed Forces to furnish FAA with notice of parachute jumping to be conducted within restricted areas under the control of an Armed Force.

The FAA has become aware that the requirement for prior notification of parachuting activities by an Armed Force within a restricted area that is controlled by an Armed Force serves no useful aeronautical purpose, and the preparation, receipt, transfer and recording of the information creates an unnecessary administrative burden for both the Armed Force and the FAA.

The information contained in the notification required by the present rule is rarely of use to the FAA since prior permission from the controlling agency, in this case an Armed Force conducting the operations, is required for entry into the restricted area. Flights admitted to the area are advised by the controlling agency of hazardous activities in progress or scheduled to be in progress. Flight safety requirements are thus satisfied by this control and the prohibition against entry without prior permission contained in Part 91 of the Federal Aviation Regulations.

Since this amendment is minor in nature and one in which the public has little interest, notice and public procedure hereon are considered unnecessary.

In consideration of the foregoing, Part 105 of the Federal Aviation Regulations is amended effective September 21, 1968, by adding a new paragraph (d) to § 105.11.

This amendment is made under the authority of sections 307, 313(a), and 601 of the Federal Aviation Act (49 U.S.C. 1348, 1354(a), and 1421).

Amendment 105-5

Clearance From Clouds and Flight Visibility Requirements

Adopted: May 3, 1971

Effective: June 12, 1971

(Published in 36 F.R. 8775, May 13, 1971)

The purpose of this amendment to Part 105 of the Federal Aviation Regulations is to make the clearance from clouds requirements and flight visibility minimums of Part 105 more consistent with the basic VFR weather minimums of Part 91.

This amendment is based on a Notice of Proposed Rulemaking, Notice 69-47, published in the Federal Register on October 29, 1969 (34 F.R. 17448).

In addition to the proposal upon which this amendment is based, Notice 69-47 also proposed to allow altimeters on aircraft carrying parachute jumpers to be set at zero altitude prior to takeoff, when the airport of takeoff and the jump zone are at the same location. Of the eleven comments received in response to the Notice, the majority of them dealt predominantly with this proposal, and generally speaking the reaction of the commentators was mixed. However, further FAA study based on the comments received, indicates that it is not appropriate at this time to adopt this requirement. As indicated in the Notice, the FAA is aware that permitting the operator of a jump aircraft to set the altimeter at zero altitude would enhance the safety of the parachute jumper because it would give a calculation-free reading of the actual height above the ground. However, while beneficial to the jumper, such a requirement could cause difficulties for the pilot and consequently could create a dangerous situation for other traffic in the vicinity of the jump. For example, several commentators favoring the proposal noted the fact that if it were adopted the jumper would be freed of a mental calculation in determining the actual height above the ground; but, the net effect of this action would be to require the pilot to make calculations to determine his proper altitude based on MSL. Such calculations by the pilot defeat the purpose of an altimeter requirement which is to apprise the pilot of his altitude by ready reference.

The FAA is cognizant of the need to improve conditions for parachute jumpers, but actions taken toward that end cannot so adversely affect the total jump operation that safety in air commerce is jeopardized. The need to increase jump safety through actual altitude information can be met by use of a jump

clearance from clouds rather than 2,000 feet as proposed, and that there be a five mile night visibility requirement rather than three miles. The FAA does not consider it necessary at this time in the interest of safety to require greater clearance from clouds requirements or flight visibility minimums than those currently in effect under Part 91.

This amendment changes the format of proposed § 105.29 by setting forth the clearance and visibility requirements in chart form, similar to that used in Part 91. This change will result in greater clarity in understanding the requirements prescribed therein.

Finally, as proposed in the Notice, § 105.31 is deleted inasmuch as the requirements currently contained therein will be incorporated in the amendment to § 105.29.

In consideration of the foregoing, Part 105 of the Federal Aviation Regulations is amended, effective June 12, 1971.

This amendment is made under the authority of sections 307, 313(a), and 601 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, and 1421), and section 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)).

Amendment 105-6

Operations Review Program

Amendment No. 1: Clarifying and Editorial Changes

Adopted: October 20, 1976

Effective: November 29, 1976

(Published in 41 F.R. 47227, October 28, 1976)

The purpose of these amendments is to incorporate into Parts 63, 91, 105, 121, 123, 129, 135, 145, and 147 of the Federal Aviation Regulations several clarifying and editorial revisions.

These amendments are based on a Notice of Proposed Rulemaking (Notice 75-39), published in the Federal Register on December 8, 1975 (40 F.R. 57342) and are the first in a series of amendments to be issued as part of the First Biennial Operations Review Program.

Interested persons have been afforded an opportunity to participate in the making of these amendments and due consideration has been given to all comments presented. Several changes have been made to the proposed rules based upon the relevant comments received and subsequent review by the FAA. Those changes and comments are discussed below and, except for those changes, the reasons for the amendments remain the same as contained in Notice 75-39. The following discussion is keyed to the like-numbered proposals contained in Notice 75-39.

Proposal 1. Addition of class ratings to flight engineer certificates is presently controlled by § 63.33 and hence the proposed revision to § 63.45 would create a redundancy. As the applicable dates have passed, § 63.45 is no longer operative and therefore it is being deleted.

Proposal 4. This proposal change to § 91.24 is being deferred for consideration in a later notice.

Proposal 9. As December 30, 1975 has passed, § 91.52(g) is no longer applicable and is therefore deleted.

Proposal 13. This proposal to amend § 91.181 contained two typographical errors. The reference to §§ 91.127 and 91.129 should read §§ 91.217 and 91.219, respectively.

Proposal 27. This proposal to amend § 121.433(c)(1)(i) was intended to clarify the existing rule. Several commentators noted that the intended clarification had the opposite effect. Therefore, this proposal

words are contained in the current rule and removal would amount to a substantive change, the comment is beyond the scope of this regulatory action.

Proposals 43 and 44. One commentator stated, "The deletion of section 135.144a leaves the proposed rule incomplete in that FAR 23.1(a) applies to airplanes of nine seats or less and therefore no provisions are given for this in 135.144 as proposed." Such is not the case. The change to § 135.144 and the deletion of § 135.144a will in no way affect current substantive requirements for aircraft of nine seats or less. Section 135.144, as its title indicates, imposes additional requirements for airplanes carrying 10 or more passengers.

The commentator also noted substantive objections to § 135.144 and noted that no substantive discussion of the proposed change was included in the notice. Since the proposed rule change was nonsubstantive, it was not addressed in the preamble other than to note that an editorial change was being proposed. Substantive objections to the provisions of § 135.144 are beyond the scope of this regulatory action.

Proposals 48, 49, 50, and 51. Comments received on these proposals to make several changes to Part 137 indicate that further study is appropriate. The proposals are being withdrawn and will be addressed in a later notice.

Proposal 53. One commentator suggested that the phrase "or equivalent" be added after "inspection procedures manual" in proposed § 145.45(f) since several air carriers holding repair station certificates utilize different titles for their manuals. The intent of the regulation is not to require a manual of specific title but a manual of specific concern. Therefore, to preclude confusion, the language is changed to "a manual containing inspection procedures".

These amendments are made under the authority of secs. 307, 313(a), 601, 603, and 607, Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354(a), 1421, 1423, and 1427), and sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).

In consideration of the foregoing, and for the reasons stated in Notice No. 75-39, Parts 63, 91, 105, 121, 123, 129, 135, 145, and 147 of the Federal Aviation Regulations are amended effective November 29, 1976.

The Federal Aviation Administration has determined that this document does not contain a major proposal requiring preparation of an Inflation Impact Statement under Executive Order 11821 and OMB Circular A-107.

Amendment 105-7

Operations Review Program

Amendment No. 4: Miscellaneous Amendments

Adopted: May 19, 1978

Effective: June 26, 1978

(Published in 43 F.R. 22636, May 25, 1978)

SUMMARY: The purpose of these amendments is to update and improve regulations concerning aircraft maintenance, airmen certification, and general operating and flight rules, parachuting, certification and operation of air carriers and commercial operators, air travel clubs, agricultural aircraft operations, repair stations, and aviation maintenance technical schools. These amendments are part of the Operations Review Program.

Clarifying and editorial changes	(41 FR 47227; October 28, 1976)
Rotorcraft External-Load Operations	(42 FR 24196; May 12, 1977 amended by 42 FR 32531; June 27, 1977)
Airspace, Air Traffic and General Operating Rules	(To be issued at a later date)

These amendments are based on a Notice of Proposed Rule Making (Notice 76-28) published in the Federal Register on December 27, 1976, (41 FR 56280). All interested persons have been afforded an opportunity to participate in the making of these amendments and due consideration has been given to all matters presented. A number of substantive changes and changes of an editorial and clarifying nature have been made to the proposed rules based upon relevant comments received and upon further review by the FAA. Except for minor editorial and clarifying changes and the substantive changes discussed below, these amendments and reasons for their adoption are the same as those contained in Notice 76-28.

Five proposals which were contained in Notice 76-28, pertaining to Part 135, Air Taxi Operators and Commercial Operators of Small Aircraft, are not being dealt with here. They will be considered in conjunction with the proposals contained in Part 135 Regulatory Review Program, Notice No. 77-17: Air Taxi Operators and Commercial Operators (42 FR 43490; August 29, 1977).

Amendments to § 121.343(d), § 121.359(e), § 121.703(f), § 127.127(d), and § 127.313(f) were not included in Notice 76-28. Since these amendments are editorial changes which reflect the National Transportation Safety Board's revised regulations, they are included in this amendment.

Discussion of Comments

The following discussion is keyed to the like-numbered proposals contained in Notice 76-28.

Proposal 4-1. One commenter suggested that the word "knowingly" be inserted between "may" and "make" in paragraph (a) of proposed § 43.12 to clarify the intent behind the meaning of the word "fraudulent". The FAA does not believe it is necessary to add the word "knowingly" since the proof of a fraudulent act is based on the person knowingly committing the act. Accordingly, the proposal is adopted without substantive change.

Proposal 4-2. No unfavorable comments were received on the proposal to review paragraph (b)(2) of Appendix E to Part 43. Accordingly, the proposal is adopted without substantive change.

Proposal 4-3. One commenter recommended clarification of the first paragraph of Appendix F to Part 43 which refers to an additional 3 decibel (db) tolerance allowed to compensate for antenna coupling errors during receiver sensitivity measurements. The commenter states this has been interpreted by some to mean $\pm 1\frac{1}{2}$ db and by others to mean ± 3 db. After review, the FAA agrees and the proposed rule is changed by substituting the word "loss" for "tolerance."

After further review of paragraph (a), Appendix F to Part 43, the FAA believes the words "of the system" should be inserted between the words "frequency" and "is" to clarify that the antenna should be used during the transponder frequency check. Accordingly, proposed Appendix F to Part 43 is adopted as proposed except for the revisions discussed above.

Proposal 4-4. One commenter was against extending the effective date of a temporary certificate from 90 days to 120 days and suggested that the FAA's certificate handling facilities should be improved to provide more rapid service. The FAA believes that an addition of 30 days is necessary to handle the numerous applications received and to avoid the need for applicants to obtain renewal of the temporary

Proposal 4-7. No unfavorable comments were received on the proposal to delete § 63.53(b) and (c). Accordingly, the proposal is adopted without substantive change.

Proposal 4-8. No unfavorable comments were received on the proposal to amend § 63.57(a) and therefore it is adopted without substantive change. However, the FAA believes the words “any part of” and “except the section on plotting and computing” in § 63.57(b) should be deleted since they are rendered unnecessary by the amendment to § 63.53 (see Proposal 4-7). Accordingly, the words discussed above are deleted from § 63.57(b).

Proposal 4-9. No unfavorable comments were received on the proposal to revise § 63.59(b) or (c) and the proposal is adopted without substantive change. For comments related to proposed § 63.59(a)(2) and deletion of the phrase “in the case of applicant’s first failure” in proposed § 63.59(a)(2), see Proposal 4-12.

Proposal 4-10. Although there were no unfavorable comments to the proposed revision of Appendix A of Part 63, the FAA believes the proposal should be withdrawn since a substantial portion of the rule was inadvertently omitted. Accordingly, the proposal to revise Appendix A of Part 63 is withdrawn.

Proposal 4-11. For a discussion of comments relating to the proposal to amend § 65.13 and for the disposition of that proposal, see Proposal 4-4.

Proposal 4-12. Thirty-nine comments objected to the proposed amendments to § 65.19. Many commenters objected to limiting the number of retests to one within 30 days as proposed in § 65.19(b) in case of an applicant’s first failure. These commenters stated that this restriction would place an unnecessary burden on applicants by increasing the time for certification without a commensurate increase in benefits or safety. Upon further review, the FAA agrees and the phrase “In the case of an applicant’s first failure” in proposed § 65.19(b) is deleted.

The proposed change to § 65.19(b) with respect to the phrase “In the case of an applicant’s first failure” is identical to the proposed change to §§ 63.41(b) and 63.59(a)(2) in Proposals 4-6 and 4-9 respectively. Accordingly, the proposed change to § 63.41(b) is withdrawn and the proposed change to § 63.59(a)(2) is amended to delete the above phrase.

Several commenters objected to proposed § 65.19(b) because it denied certified ground instructors the privilege of giving additional instruction to applicants in preparing them for retesting. The commenters stated that ground instructors were the only persons, other than flight instructors, who have been tested on their ability to teach various technical subjects. The FAA does not issue ground instructor ratings which are appropriate to teach air traffic control tower operator, aircraft dispatcher, parachute rigger, or mechanic applicants.

Since aviation safety and public interest demands that only persons who have demonstrated their technical knowledge and skill for a particular certificate should be qualified to provide instruction and certify competency for that certificate, the FAA believes the instructor must possess at least the same certificate and rating that the applicant is seeking to obtain. Accordingly, the proposal to amend § 65.19 is adopted as proposed with the revision discussed above.

Proposal 4-13. One commenter believed § 91.8 should be further expanded to include the prohibition against the interference with flight crewmembers before the aircraft is boarded. Since such a prohibition would be difficult to enforce and could give rise to jurisdictional problems, the FAA does not consider this prohibition a proper subject for rulemaking.

One commenter stated that proposed § 91.8(b) could apply to an aircraft owner who might ask the pilot to alter course or change destination. The commenter suggests clarifying the language. Another commenter expressed concern for the proposed wording of § 91.8(b) since it appears that a pilot examiner would be in violation by asking a private pilot applicant to divert from a course during a flight test. This was not the FAA’s intent. The prohibition was directed toward unreasonable requirements, such

ingly, the proposal is adopted without substantive change.

Proposal 4-17. No unfavorable comments were received on the proposed revision to § 91.43(b). Accordingly, the proposal is adopted without substantive change.

Proposal 4-18. One commenter disagreed with the proposed revision to § 91.52(d)(2) that would require the new expiration date for replacement (or recharge) of the emergency locator transmitter's battery to be entered in the aircraft maintenance record and suggested the use of a placard located inside the cabin as a better solution. The FAA believes that a maintenance record entry is a more reliable method of determining the replacement date than a placard. Accordingly, proposed § 91.52(d)(2) is adopted without substantive change.

Proposal 4-19. Several commenters contended that proposed § 91.73(d) would be too restrictive and does not allow sufficient discretionary authority to the pilot in command as to when the anticollision lights should or should not be lighted. They state that the use of a strobe light as an anticollision light would create an unsafe condition during certain aircraft operation such as taxiing, takeoff and landing, if the pilot did not have the option to turn it off except during adverse meteorological conditions.

In light of these comments and upon further review, the FAA agrees that there are instances when the use of a high intensity anticollision light could induce vertigo and cause spatial disorientation. Accordingly, § 91.73(d) is revised to provide that the pilot in command may turn off the anticollision lights at any time in the interests of safety.

Proposal 4-20. One commenter does not believe the word "nearest" in proposed § 91.83(d) conveys the operational procedure presently used by the FAA, and suggested it be changed. In light of this comment, and after further review, the FAA believes that any restrictive term is unnecessary and could possibly discourage the filing of flight plans. Accordingly, the words "the nearest" in proposed § 91.83(d) are deleted and the word "an" inserted.

Proposal 4-21. One commenter objected to the wording of proposed § 91.173 on the ground that it places an unwarranted burden on the owner or operator to determine such items as revision date, airworthiness directive (AD) number, and if an AD involves recurring action, the time and date when the next action is required. The commenter further stated that § 91.173 places responsibility on the owner or operator for the content of Part 43 maintenance record entries made by persons authorized by the FAA.

The FAA believes that the owner or operator should be responsible for the retention of the required maintenance records for the specified periods and furnish such records to the person authorized by the FAA to accomplish the work. The FAA believes that the owner or operator should also ensure that the appropriate information as prescribed in § 91.173 is entered in the maintenance records. The intent of the proposal is to require the retention of more specific information relating to ADS and their compliance. In addition, each person authorized to perform the maintenance is only responsible for the content of the required record entries. Accordingly, the proposed revisions to § 91.173 (a), (b), and (a)(2)(v) and the addition of new (b)(3) are adopted without substantive change.

Proposal 4-22. One commenter who supported the proposed § 91.189(b)(5) suggested that attachment points for the lifeline be permanently installed on the wings of the aircraft. The FAA believes current § 25.1411(g) adequately covers lifeline attachment. Accordingly, proposed § 91.189(b)(5) is adopted without substantive change.

Proposal 4-23. The only public comment received on the proposal to amend paragraph 2(a)(7) of Appendix A to Part 91 recommended that radio altimeters be included in the proposed requirement but gave no further explanation. Since radio altimeters have markings at 20 feet or less intervals, the FAA believes that no reason exists at this time to include them in this amendment. Accordingly, the proposal is adopted without substantive change.

airspace from the instant the jumper exits the aircraft until the jumper reaches the surface. All that changes with the development of the chute is the speed the object is falling. A free-fall jump can extend through thousands of feet of airspace, presenting a hazard to air navigation. Accordingly, in the interest of safety, proposed § 105.33 (a) and (b) are adopted without substantive change.

Proposal 4-26. No unfavorable comments were received on the proposal to amend § 105.43. Accordingly, the proposal is adopted without substantive change.

Proposal 4-27. No unfavorable comments were received on the proposal to revise § 121.11. Accordingly, the proposal is adopted without substantive change.

Proposal 4-28. No unfavorable comments were received on the proposal to amend § 121.26. Accordingly, the proposal is adopted without substantive change.

Proposal 4-29. No comments were received on the proposal to revise § 121.29(b). After further review, the FAA believes there is no current need for the proposed revision. Accordingly, proposed § 121.29(b) is withdrawn.

Proposal 4-30. No unfavorable comments were received on the proposal to amend § 121.47(a). Accordingly, the proposal is adopted without substantive change.

Proposal 4-31. No comments were received on the proposal to revise § 121.53(e). After further review, the FAA believes there is no current need for the proposed revision. Accordingly, proposed § 121.53(e) is withdrawn.

Proposal 4-32. No favorable comments were received on the proposal to revise § 121.61(b)(1). Accordingly, the proposal is adopted without substantive change.

Proposal 4-33. No unfavorable comments were received on the proposal to amend § 121.135(b) (6) and (7). Accordingly, the proposal is adopted without substantive change.

Proposal 4-34. No unfavorable comments were received on the proposal to amend § 121.191(a). Accordingly, the proposal is adopted without substantive change.

Proposal 4-35. The commenters to proposed § 121.309(b)(4) contend the proposal was unnecessarily redundant, served no useful purpose, and did not enhance safety. The commenters objected to this proposal from the standpoint that it would impose: (1) an unwarranted recordkeeping burden on operators utilizing an equipment control program that is controlled by hours or cycles and not by a specific inspection due date; (2) a risk of not having the inspection dates marked on the containers when equipment items were transferred from one airplane to another; and (3) an additional task of changing inspection dates with possible resultant error.

In light of these comments and after further review, the FAA believes the proposal would possibly impose a burden not commensurate with its probable contribution to safety. Accordingly, proposed § 121.309(b)(4) is withdrawn.

Proposal 4-36. One commenter suggested the use of the phrase “no person” instead of “no passenger or crewmember” in proposed § 121.317(b). The FAA believes the phrase “no passenger or crewmember” is more definitive and the proposed wording is retained. Another commenter objected to the proposal on the grounds that there are instances when it is acceptable for cockpit crewmembers to continue to smoke and stated that this determination should be left up to the discretion of the cockpit crewmembers. The FAA disagrees. As a safety factor, flight crewmembers should be prohibited from smoking when the “no smoking” sign is lighted. Accordingly, proposed § 121.317 (a) and (b) is adopted without substantive change.

Proposal 4-37. No unfavorable comments were received on the proposal to amend § 121.401(c). Accordingly, the proposal is adopted without substantive change.

Proposal 4-41. No unfavorable comments were received on the proposal to amend § 121.652(a). However, as stated in the preamble to Notice 76-28, the FAA believes the flight time, in order to be credited, must be acquired in the same "type" airplane. Accordingly, the proposal is adopted by inserting the work "type" to further clarify the intent of the rule.

Proposal 4-42. No unfavorable comments were received on the proposal to amend § 121.697(e)(2). Accordingly, the proposal is adopted without substantive change.

Proposal 4-43. No unfavorable comments were received on the proposal to revise § 121.723(a) and (b). However, in order to avoid the reissuance of certificates at the conclusion of each assignment, the wording is changed so that the certificate is retained until termination of employment with the carrier or operator. Accordingly, the proposal is adopted with the change discussed.

Proposal 4-44. No unfavorable comments were received on the proposal to add a new § 123.11(b)(3). Accordingly, the proposal is adopted without substantive change.

Proposal 4-45. No unfavorable comments were received on the proposal to add a new § 123.12. Accordingly, the proposal is adopted without substantive change.

Proposal 4-46. No unfavorable comments were received on the proposal to revise § 123.13. Accordingly, the proposal is adopted without substantive change.

Proposal 4-47. No unfavorable comments were received on the proposal to revised § 123.15(a). Accordingly, the proposal is adopted without substantive change.

Proposal 4-48. No comments were received on the proposal to revise § 123.19(c). After further review, the FAA believes there is no current need for the proposed revision. Accordingly, proposed § 123.19(c) is withdrawn.

Proposal 4-49. No unfavorable comments were received on the proposal to revise § 123.27. Accordingly, the proposal is adopted without substantive change.

Proposal 4-50. No unfavorable comments were received on the proposal to revise § 123.41(a)(1). Accordingly, the proposal is adopted without substantive change.

Proposal 4-51. No unfavorable comments were received on the proposal to revise § 127.3. Accordingly, the proposal is adopted without substantive change.

Proposal 4-52. No comments were received on the proposal to revise § 127.21(b). After further review, the FAA believes there is no current need for the proposed revision. Accordingly, proposed § 127.21(b) is withdrawn.

Proposal 4-53. No unfavorable comments were received on the proposal to revise § 127.151(a). Accordingly, the proposal is adopted without substantive change.

Proposal 4-54. For a discussion of comments relating to proposed § 127.212 and for the disposition of that proposal, see Proposal 4-39.

Proposal 4-55. No unfavorable comments were received on the proposal to revise § 127.249(b). Accordingly, the proposal is adopted without substantive change.

Proposals 4-56 through 4-60. These proposals are included in the Part 135 Regulatory Review Notice 77-17: Air Taxi Operators and Commercial Operators (42 FR 43490; August 29, 1977). Comments received on the proposed amendments to Part 135 in Notice 76-28 will be considered in conjunction with other comments received in response to Notice 77-17.

Proposal 4-61. No unfavorable comments were received on the proposal to amend § 137.19(e). Accordingly, the proposal is adopted without substantive change.

ing, the proposal is adopted without substantive change.

Proposal 4-65. No unfavorable comments were received on the proposal to revise § 147.31(c)(1) and to add a new § 147.31(c)(2). After further review, the FAA believes that the following editorial changes should be made: (1) in the proposed § 147.31(c)(1)(ii) the word "accreditation" is used in place of the word "certification" which appears in current § 147.31(c)(1). This oversight is corrected in the adopted rule since it was not the intent of the proposal to change the wording to accreditation; (2) the phrase "other than the crediting school" immediately following the word "accreditation" in proposed § 147.31(c)(1)(ii) was inadvertently omitted and has been included in the final rule. Accordingly, the proposal to revise § 147.31(c)(1) and to add a new § 147.31(c)(2) is adopted as proposed except for the revisions discussed above.

Proposal 4-66. Although there were no unfavorable comments to the proposed deletion and reservation of Part 149, the proposal is withdrawn for the reasons discussed in Proposal 4-62.

Drafting Information

The principal authors of this document are Thomas G. Walenta, Flight Standards Service, and Richard B. Elwell, Office of General Counsel.

Adoption of the Amendments

Accordingly, Parts 43, 61, 65, 91, 105, 121, 123, 127, 137, 145, and 147 of the Federal Aviation Regulations (14 CFR Parts 43, 61, 63, 65, 91, 105, 121, 123, 127, 137, 145, and 147) are amended as follows, effective June 26, 1978.

(Secs. 313, 314, and 601 of the Federal Aviation Act of 1978 (49 U.S.C. 1354, 1355, and 1421 through 1430) and Sec. 6(c) of the Department of Transportation Act (41 U.S.C. 1655)).

NOTE.—The Federal Aviation Administration has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821, as amended by Executive Order 11949, and OMB Circular A-107.

Amendment 105-8

Airport Radar Service Areas

Adopted: February 27, 1985

Effective: March 14, 1985

(Published in 50 FR 9252, March 6, 1985)

SUMMARY: This action adopts certain National Airspace Review (NAR) recommendations concerning air traffic rules governing flight operations within airspace designated as "airport radar service area (ARSA)." Specifically, this action defines "airport radar service area" and establishes air traffic rules for operation within such an area. The initial airport radar service areas are established under separate rulemaking actions in Airspace Docket No. 84-AWA-31 for the Robert Mueller Municipal Airport, Austin, TX; the Port Columbus International Airport, Columbus, OH; and the Baltimore/Washington International Airport, Baltimore, MD. Future notices will propose airport radar service areas for other locations.

FOR FURTHER INFORMATION CONTACT: Mr. William C. Davis, Airspace-Rules and Aeronautical Information Division, ATO-200, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D.C. 20591, telephone (202) 426-8783.

SUPPLEMENTARY INFORMATION

system.

(3) To revalidate ATC services within the National Airspace System with respect to state-of-the-art and future technological improvements. This will entail a complete review of separation criteria, terminal control area/terminal radar service area (TCA/TRSA) requirements, instrument flight rules/visual flight rules (IFR/VFR) services to the pilot, etc.

Organizations participating in the NAR task group are:

Federal Aviation Administration

Department of Defense

Air Transport Association

National Business Aircraft Association

Regional Airline Association

Aircraft Owners and Pilots Association

Experimental Aircraft Association

Helicopter Association International

Air Line Pilots Association

NAR RECOMMENDATIONS PERTAINING TO THE PROPOSAL

The comprehensive plan contains an administrative structure and detailed task assignments which resulted in recommendations to the FAA, including the NAR Task Group 1-2.2 recommendations set forth below.

NAR 1-2.2.1 REPLACE TRSA's WITH AIRPORT RADAR SERVICE AREAS (ARSA's)

“The Task Group recommends that the current Terminal Radar Service Area (TRSA) program—Airspace and Services—be discontinued. The Task Group further recommends that the concept identified herein as [airport radar service area (ARSA)] be implemented as replacement for the TRSA program in accordance with the recommendations to follow.”

(The task group recommendations referred to the ARSA concept as “Model B Airspace.” References to “Model B Airspace” have been replaced with the term “ARSA” for consistency with the terminology used in the FAA rule.)

NAR 1-1.2.2 ARSA SIZE AND OPERATING REQUIREMENTS

“The Task Group recommends that the physical dimensions of [an ARSA] shall be a 10 NM radius capped at 4,000 feet height above airport (HAA) from the primary airport. This airspace shall extend down to 1200 feet above the surface except that an inner core with a 5 nautical mile radius shall extend down to the surface. Except for aircraft departing from satellite airports/heliports within [an ARSA], all aircraft shall establish two-way radio communications with ATC prior to entering [an ARSA]. Aircraft departing satellite airports/heliports within the surface area of [an ARSA] shall establish two-way radio communications with ATC as soon as possible. Pilots must comply with approved FAA traffic patterns when departing these airports.”

NAR 1-2.2.3 OUTER AREA LIMITS AND OPERATING REQUIREMENTS

“The Task Group recommends that the outer limit of [the area outside of the ARSA in which ARSA services are provided by an ARSA facility] be the same dimensions as the radar/radio coverage within each approach control's delegated airspace. While strongly encouraged, two-

NAR 1-2.2.6 AIRSPACE DESIGNATION CRITERIA

“The Task Group recommends that, excluding TCA locations, all airports with an operational airport traffic control tower and currently contained within a TRSA serviced by Level III, IV, or V radar approach control facility shall have [an ARSA] designated; unless a study indicates that such designation is inappropriate for a particular location. Any other location serviced by a radar approach control facility may be considered as a candidate location [an ARSA] on the basis of a thorough staff study considering, but not limited to, the following:

1. Traffic mix, flow, density, and volume.
2. Airport configuration, geographical features and adjacent airspace/facilities.
3. Collision risk assessment.
4. ATC capabilities to provide [ARSA] services to the users at maximum benefit and minimum cost.

All proposed [ARSA] actions shall be subject to regional and headquarters approval. Military operated facilities will process requests through appropriate military and FAA channels. Any [ARSA] location which fails to meet the establishing criteria for its respective location for more than 12 consecutive months, shall be subject to a regulatory review to terminate the [ARSA] designation.”

NAR 1-2.2.7 CHARTING

“The Task Group recommends for further consideration by Task Group 1-6 that all [ARSA’s] be charted, and that either a visual or narrative method of identifying the [area in which ARSA services are provided by an ARSA facility] be undertaken.”

NAR 1-1.2.8 EDUCATION

“The Task Group recommends the aviation community be made aware of [the ARSA program] by educational programs to support ATC operational and procedural information, phraseology, practices, and the desirability of voluntary participation. Specifically, it is recommended:

1. All FAA pilot exams and appropriate textbooks must contain a significant amount of questions and information concerning radar operation in terminal areas. Specifically, operations and procedures be included in written and practical tests for pilot certification, ratings, and reviews.
2. Specific questions and answers must be required on all flight reviews and other appropriate occasions (air carrier initial and recurrent proficiency training, pilot proficiency exams, biennial flight review, etc.) to assure that users in every aviation community have shown a current understanding of radar terminal areas and their use of these areas.
3. The FAA develop and fund a traveling air traffic team to speak to pilot groups on operations within the National Airspace System; i.e., [ARSA]. Emphasis should be given to flight instructor contact.
4. An advisory circular dealing with [the ARSA program] be published to include well presented, up-to-date information on operations in terminal airspace and that this advisory circular be given the widest possible dissemination to aviation users and organizations.
5. The Airman’s Information Manual (AIM) be distributed free of charge to all fixed-base operators (FBO’s) at all public use airports.
6. FAA Public Affairs Office develop and promote through the general news media, aviation awareness of FAA services and publications available to the pilot and general public.
7. Facts about terminal airspace in some form of questionnaire be developed and distributed by the FAA to appropriate agencies (licensed pilots, fixed-base operators, business organizations,

reviewing the proposal in the light of the comments received, the FAA issued SFAR No. 45 [October 28, 1983; 48 FR 50038] to accomplish the confirmation.

The FAA contracted with Engineering and Economic Research, Inc. (EER) to analyze user operational experience with the ARSA's at Columbus and Austin. A copy of the EER analysis is in the docket. The FAA, itself, conducted random informal evaluations of ATC procedures which were also being confirmed. Informal discussion between FAA management and air traffic controllers at Columbus and Austin concerning ARSA operations and air traffic procedures were conducted routinely. These activities revealed that a significant majority of users approve of the ARSA concept in the NAR recommendations. The FAA also conducted a detailed analysis of comparative radar data gathered before and during the confirmation at Columbus, a copy of which is in the docket, and found that the ARSA produced a significant reduction in collision risk.

The FAA concluded that the confirmation at Columbus and Austin indicated probable benefits of the ARSA program for users at other locations. The confirmation also revealed an ARSA to be a practical replacement for a TRSA from an ATC procedural standpoint. On November 30, 1984, the FAA published Notice No. 84-22 which proposed air traffic rules governing flight operations within designated ARSA's (49 FR 47184).

Analysis of Comments

The FAA received 17 comments on the Notice of Proposed Rulemaking (NPRM) published November 30, 1984, in Docket No. 23708, in addition to 15 comments received earlier in the same docket in response to SFAR 45, which included a request for comments. Also, several comments received in the related Airspace Docket No. 84-AWA-31 contained remarks pertinent to Docket No. 23708, and were considered in the development of this rule. Those persons who have an interest in either proposal are encouraged to review the comments submitted in both dockets.

Several commenters were critical of the comment period on the NPRM provided by the FAA, and requested an extension of the comment period. The FAA believes the period of notice and comment was sufficient to permit full public comment on the proposed rule. The flight rules adopted in this amendment have been the subject of extensive discussion and review by the aviation public as a result of the NAR process, by which the rules were recommended. Moreover, the designation of any particular site for establishment of an ARSA will be the subject of additional rulemaking, with the opportunity for additional public comment.

The comments received on the SFAR between December 1983 and August 1984 were generally critical of the ARSA concept, although not on the basis of actual experience with the Austin, TX, or Columbus, OH, ARSA's. Common comments were that the standardized ARSA airspace will not serve the intended purpose in areas of mountainous terrain, will discourage or preclude certain activities such as soaring near ARSA airports, and will inhibit free access to satellite airports within an ARSA. The FAA does not believe that any of the above criticisms constitutes an unsurmountable problem with establishment of the ARSA program or presents sufficient reason to depart from the general policy of establishing ARSA's in a standardized configuration. However, the actual configuration of any particular ARSA will take into consideration any unusual terrain features. Also, there are means to accommodate the presence of satellite airports and, where consistent with ATC safety and efficiency, VFR activities such as soaring. These measures are discussed in more detail below in connection with comments received in response to the most recent NPRM.

Comments received from organizations which participated in NAR Task Group 1-2.2 were generally supportive of the proposed ARSA rules. These groups included the Aircraft Owners and Pilots Association (AOPA), the Air Transport Association (ATA), the Experimental Aircraft Association (EAA), the National Business Aircraft Association (NBAA), the Regional Airline Association (RAA), and the Air Line Pilots Association (ALPA). In each case the above groups offered additional comments or requests which, together with other comments received, are discussed below by subject.

Recommendation 1-2.2.1. Initially, only those TRSA locations which are served by a Level III, IV, or V terminal radar facility will be considered for establishment. In each case, an ARSA would be established only after issuance of an NPRM and the opportunity for public comment on the merits of an ARSA at the proposed location. The impact on the proposed ARSA of local geography, adjacent airspace configurations, and nearby airports would receive full consideration by FAA not only in determining appropriate adjustments to the configuration of the ARSA, but also in determining whether it would be appropriate to establish an ARSA.

FAA is currently in the process of developing specific quantitative criteria, such as traffic and passenger enplanements, for example, for proposing the establishment of ARSA's for locations that are not TRSA's or that are not served by a Level III, IV, or V approach control facility. FAA will issue the criteria before proposing such additional ARSA locations. FAA does not intend to develop the criteria through the formal rulemaking process, but will take into consideration all comments relating to establishment criteria received in the docket.

FAA has not proposed to consider any existing TCA's for potential replacement by ARSA's, and does not adopt such a policy at this time.

Potential Impacts

Comments critical of the proposal generally involved concerns about increased delays, the exclusion of certain user groups, and potential safety impacts. Several commenters were concerned that establishment of an ARSA would increase traffic delays in that area as a result of unnecessary separation standards, extensive vectoring, and the difficulty in contacting ATC due to frequency congestion. Because participation in existing TRSA's is high, and separation standards in an ARSA are less than those in a TRSA (radar separation standards in an ARSA are less than 1.5 mile lateral standard for participating aircraft in a TRSA), FAA does not believe that the implementation of mandatory separation in ARSA's will result in any significant traffic delays. For the same reason, the FAA does not anticipate extensive or circuitous vectoring of aircraft in an ARSA. The NAR proposal was intended to minimize the vectoring or rerouting of VFR aircraft in affected terminal airspace, and this should be accomplished by the procedures implemented by FAA. Moreover, the only requirement to enter an ARSA is two-way radio communications with ATC. In the absence of subsequent ATC instructions, the pilot may proceed via his/her planned route. Finally, FAA does not believe that radio frequency congestion will result in delays or exclusion from an ARSA. When congestion is experienced, resource adjustments will be considered to resolve the problem.

A few commenters on the NPRM expressed concern that an ARSA would have the effect of excluding some VFR pilots, primarily recreational aircraft and sailplanes. The ARSA requirement for two-way radio communications does effectively preclude aircraft not having this basic communications capability from entering an ARSA, without special ATC authorization. FAA believes, however, in consideration of the safety benefits of the communications requirement, that the effects of the rule are limited and are fully justified. Moreover, as discussed below in connection with ARSA configuration, special procedures will be considered on a site-specific basis to permit access to nontower airports underlying an ARSA, without entering ARSA airspace. It may also be possible, at affected sites, to accommodate soaring and other recreational VFR flight activities in an ARSA through agreement with the controlling ATC facility. In the rulemaking which will precede the establishment of each individual ARSA, FAA will consider comments and suggestions on means for the safe and efficient accommodation of aviation activities which might otherwise be precluded by the proposed ARSA.

While none of the commenters on the NPRM claimed that an ARSA would reduce safety rather than enhance it, several safety-related issues were raised in comments on the NPRM and on the previous SFAR. One commenter suggested that controller workload would be substantially increased by the implementation of an ARSA. The FAA is confident that an increase in traffic will only result from the handling of aircraft not presently participating in the TRSA program and that any such increase would not cause a substantial increase in an individual controller's workload because of the present

in VFR pilots, and would undermine the duty to see-and-avoid other aircraft. See-and-avoid responsibility is not relieved or diminished in an ARSA, and FAA intends to make this responsibility clear in informational announcements and materials dealing with the ARSA program. However, FAA believes that any possible misperception of some pilots as to their see-and-avoid responsibilities in an ARSA environment, is an issue of pilot education, and does not support the nonadoption of the ARSA concept itself.

ARSA Configuration and Dimensions

Many of the commenters suggested changes to the ARSA dimensions as proposed, while others urged that no consideration be given to expansion of the proposed dimensions. Commenters generally supported the FAA policy of standardizing the dimensions of ARSA's, and NBAA in particular expressed concern at FAA's announced intention to consider "customization" of areas in certain circumstances. FAA has adopted the dimensions as proposed, and, in the absence of special circumstances, individual ARSA's will be proposed in the standard configuration. However, the existence of other airports or controlled airspace adjacent to the primary airport may present a situation in which the standard configuration is not feasible.

AOPA and EAA both requested that access to satellite airports within a proposed ARSA be protected. AOPA specifically requested that the traffic pattern of a satellite airport be excluded from the ARSA and depicted as a cutout from the ARSA on aeronautical charts. AOPA argued that traffic to and from satellite airports should not be required to participate in the ARSA, and that exclusion of the satellite airport traffic pattern from the ARSA is the only way to avoid pilot confusion. EAA suggested that access to satellite airports within the 5-mile core of an ARSA, without participation in the ARSA, could be allowed by retaining the provisions of FAR 91.85(b). Section 91.85(b) permits operation to and from the satellite airports in an airport traffic area. FAA believes that establishment of an ARSA will not necessarily have an adverse effect on access to satellite airports within the ARSA, and that where there is a potential for such effect, it can be resolved. Satellite airports with control towers, whether in the 5-mile core or the 10-mile shelf area, will require no adjustment of the ARSA configuration. Local procedures established between the satellite tower and the ARSA controlling facility will ensure that pilots remain in contact with the appropriate facility, and that access to the airport through ARSA airspace is not impeded. For nontower airports located under the 5-and 10-mile shelf, no reconfiguration of the standard ARSA is required because aircraft may approach and depart the airport below 1200 feet above ground level (AGL), and thereby remain clear of ARSA airspace. Nontower airports within the 5-mile core area present a more complex problem. It may be most practical to provide access to the airport by letter of agreement or other special arrangement with the ARSA controlling facility. However, in situations where safety, traffic flow, or pilot understanding would be enhanced, the FAA will consider permitting unrestricted access to the airport below 1200 feet AGL. In such situations, cutouts would be depicted on the representation of the ARSA's on aeronautical charts.

AOPA renewed its request, first made in the NAR task group, that the upper limit of the ARSA airspace be set at 3000 feet above airport elevation rather than 4000 feet as proposed. This issue was considered by the NAR task group, and has been reconsidered by FAA in light of the operational experience at Austin and Columbus. Based on the majority recommendation of NAR Task Group 1-2.2, the comments of other users, and the experience with the Austin, TX, and Columbus, OH, ARSA's, FAA has retained the 4000 foot cap. FAA considers it desirable to have mandatory participation up to 4000 feet above airport elevation for the type of airports that will be eligible for the ARSA airspace designation, and we do not believe it necessary or beneficial to make the cap compatible with the upper limit of the airport traffic area, as AOPA suggests.

AOPA requests that the lower limit of the ARSA shelf be set at 1200 feet above the highest terrain in the 10-mile radius, and that the floor not be segmented to follow variations in terrain. FAA agrees that any segmenting of the floor in the 5-to 10-mile area should be kept to a minimum, but we believe that some segmenting will be appropriate in certain terrain situations. Each proposal to incorporate a segmented base altitude will be subject to further comment in the airspace rulemaking for that location.

certain prearranged areas, if control and separation of other aircraft is not adversely impacted. Procedures for any particular location would be developed during the proposal and comment process, and would be specific to that location.

Finally, several commenters addressed the nonregulatory 20-mile limit of the area in which ARSA services are provided by ATC, but in which user participation is not required. NBAA found the 20-mile perimeter acceptable, but suggested that the areas of two adjacent ARSA's be connected. This suggestion will be considered in the airspace rulemaking at appropriate locations. ALPA objected to the 20-mile limitation and requested that radar service be provided to the limits of the controlling facility's radar coverage, as implemented during the operational confirmation. For the reasons discussed in the NPRM, FAA continues to believe that the 20-mile perimeter provides a high level of service to participating aircraft consistent with the resources of the local ATC facility, and, because of its uniformity, minimizes pilots' confusion about the services available.

Required Equipment

ATA requested that altitude-encoding transponders be required in addition to two-way radios for operation in an ARSA. FAA does not believe that transponders are required to effect the purposes of the TRSA program, and does not intend to propose a requirement for transponders in ARSA airspace.

EAA and the Soaring Society of America both expressed concern that the use of 25 kilohertz (kHz) frequency spacing, made possible by 720-channel radios, would constitute a hardship for operators of small recreational aircraft having older 360-channel radio equipment. Because the rule requires two-way radio communications capability for operation in an ARSA, the use of the 25kHz spacing in ATC ARSA frequencies would effectively force these operators to upgrade their communications equipment. There is now a serious shortage of radio frequencies spaced at 100kHz intervals. The requirement for 720-channel radio capability for system users will likely increase independent of the ARSA airspace decision. At most of the locations for which ARSA's will be proposed, there is already a considerable demand for 720-channel radio capability, and FAA believes that the majority of aircraft using these airports already have this equipment. However, the extent that operators may need to install or upgrade aircraft radios at some potential ARSA sites will be assessed in the regulatory evaluation of a separate rulemaking proposing the designation of ARSA's at specific locations (see discussion in Economic Impact below).

Other Comments

A number of other comments were made concerning matters of operations under an ARSA, such as ATC procedures and the representation of ARSA's on aeronautical charts, which do not affect the substance or justification of the rule itself. FAA will take these comments into consideration in implementing designated ARSA's, but will not address them here.

Adoption of NAR Recommendations

The FAA's action with respect to each of the aforementioned NAR recommendations is set forth below.

NAR 1-2.2.1 REPLACE TRSA's WITH ARSA's

While the adoption of this recommendation would indicate that the FAA is adopting all aspects of the other NAR recommendations addressed herein, the FAA has only adopted the aspect dealing with the discontinuance of TRSA's. The remaining aspects of this recommendation are treated individually. In that regard, all current TRSA locations will remain as such until they are cancelled or converted to ARSA's. Additionally, ATC procedures dealing with TRSA's will remain in place and aeronautical charts will continue to depict each TRSA until it is cancelled or converted.

required and the FAA foresees no situation that would necessitate extension of the ARSA airspace beyond 10 nautical miles.

NAR 1-2.2.3 OUTER AREA LIMITS AND OPERATING REQUIREMENTS

While the limit that was operationally confirmed at Austin, TX, and Columbus, OH, coincided with the extent of the approach control facility's delegated airspace, the FAA may not always have the resources or capability to provide the ARSA service to those limits. Further the FAA believes flexibility must be retained in establishing limits because of considerations which include: Proximity to TCA's; clustering of ARSA's; terrain; unusually high level of activity not related to the ARSA airport operation, and radio/radar coverage. Accordingly, the limits of the airspace outside each ARSA within which ARSA services are provided will be depicted narratively on sectional charts in a manner similar to the method used for the confirmation. The procedures for establishing the limits will be implemented under the FAA directive system; therefore, user organizations will have another opportunity to provide comments regarding this subject.

NAR 1-2.2.4 ATC SERVICES

The ATC services that the task group recommended the FAA provide within the ARSA will be provided as recommended, and will be implemented under the FAA directives system. The services provided by ATC through mandatory participation in the ARSA will be available to pilots on a voluntary participation basis in other specified areas within the approach control's area of jurisdiction. These services will be in addition to the services and separation currently applied to aircraft operating under IFR. Specifically, ATC will: (1) Resolve potential conflicts between aircraft operating under IFR and aircraft operating under VFR by ensuring that 500 feet vertical separation exists between those aircraft or by ensuring that those aircraft's radar targets do not touch; and (2) provide traffic advisory service and arrival sequencing to aircraft.

Where there is a satellite airport with an operating control tower within the ARSA, the airport traffic area of the satellite airport will overlap the ARSA airspace. The requirements of the adopted rules apply in such airspace. Pilots approaching a satellite airport with an operating control tower will be provided ARSA services until they are in two-way communication with the tower. Pilots approaching a satellite airport without an operating control tower will receive ARSA services until they are instructed to change to the appropriate airport frequency; however, general traffic information concerning observed radar targets will be provided by ATC in such cases. Pilots departing a satellite airport will receive ARSA services upon establishing two-way radio communications with the ARSA facility.

The provision of ARSA services at any location is dependent upon operation of the local ATC facility. Hours of facility nonoperation, when ARSA requirements and services would not apply, may be specified in airspace rules for individual sites or by Notices to Airmen.

NAR 1-2.2.6 AIRSPACE DESIGNATION CRITERIA

This recommendation is adopted. The following is a list of TRSA locations that are candidates for conversion to ARSA's. In some cases under this recommendation, more than one ARSA would be created from a single TRSA; for example, there are three airports within the Ontario, CA, TRSA—Ontario International, March Air Force Base (AFB), and Norton AFB airports—that would be candidates for individual ARSA's. However each specific ARSA airport will be addressed separately in an NPRM.

ARSA Candidate Locations:

Anchorage, AK	Orlando, FL
Mobile, AL	Tampa, FL
Little Rock, AR	Macon, GA
Burbank, CA	Cedar Rapids, IA
Ontario, CA	Champaign, IL

South Bend, IN	Raleigh, NC
Lexington, KY	Atlantic City, NJ
Lafayette, LA	Albany, NY
Baltimore, MD	Rochester, NY
Grand Rapids, MI	White Plains, NY
Saginaw, MI	Dayton, OH
Billings, MT	Oklahoma City, OK
Greensboro, NC	Allentown, PA
Omaha, NE	Toledo, OH
Reno, NV	Charleston, SC
Islip, NY	Bristol, TN
Syracuse, NY	Memphis, TN
Columbus, OH	Austin, TX
Youngstown, OH	El Paso, TX
Portland, OR	San Antonio, TX
Harrisburg, PA	Norfolk, VA
Quonset Pt., RI	Burlington, VT
Greer, SC	Green Bay, WI
Knoxville, TN	Charleston, WV
Amarillo, TX	Huntsville, AL
Corpus Christi, TX	Abilene, TX
Midland, TX	Tucson, AZ
Chantilly, VA	Oakland, CA
Roanoke, VA	Sacramento, CA
Tacoma, WA	Colorado Springs, CO
Milwaukee, WI	Ft. Lauderdale, FL
Birmingham, AL	Pensacola, FL
Montgomery, AL	W. Palm Beach, FL
Phoenix, AZ	Savannah, GA
Monterey, CA	Des Moines, IA
Palm Springs, CA	Moline, IL
Santa Ana, CA	Springfield, IL
Daytona Beach, FL	Indianapolis, IN
Cincinnati, KY	Tulsa, OK
Baton Rouge, LA	Erie, PA
Shreveport, LA	San Juan, PR
Flint, MI	Columbia, SC
Lansing, MI	Chattanooga, TN
Jackson, MS	Nashville, TN
Fayetteville, NC	Beaumont, TX
Lincoln, NE	Lubbock, TX
Albuquerque, NM	Salt Lake City, UT
Buffalo, NY	Richmond, VA
Rome, NY	Spokane, WA
Akron Canton, OH	Madison, WI

NAR 1-2.2.7 CHARTING

This recommendation is adopted. Each ARSA will be depicted on aeronautical charts in a manner similar to the way Austin, TX, and Columbus, OH, locations are depicted.

91.88. The phrase "or heliport" was deleted from the proposed section as unnecessary, because the term "airport" as defined in FAR Part 1, Section 1.1, includes heliports.

These amendments establish a new type of airspace assignment and prescribe operating rules for aircraft, ultralight vehicles, and parachute jump operations in that airspace.

Specifically, aircraft arriving at any airport in an ARSA, and overflying aircraft, prior to entering the ARSA must: (1) Establish two-way radio communications with the ATC facility having jurisdiction over the area; and, (2) while in the ARSA, maintain two-way radio communication with that ATC facility. For aircraft departing from the primary airport within the ARSA, two-way radio communications must be maintained with the ATC facility having jurisdiction over the area. For aircraft departing a satellite airport or heliport within the ARSA, as soon as practicable after takeoff, two-way radio communications must be established and thereafter maintained, while operating within the ARSA, with the ATC facility having jurisdiction over the area.

All aircraft operating within an ARSA are required to comply with all ATC clearances and instructions and any FAA arrival or departure traffic pattern for the airport of intended operation. However, the proposed rule permits ATC to authorize appropriate deviations to any of the operating requirements of the proposed rules when safety considerations justify the deviation or more efficient utilization of the airspace can be attained. Ultralight vehicle operations and parachute jumps in an ARSA may only be conducted under the terms of an ATC authorization.

Economic Impact

This action defines an ARSA and establishes air traffic rules for operation within the ARSA. Specific designations of individual ARSA's will be proposed in separate NPRM's. This amendment has no economic consequences. Rather, it is the airspace proposals which would implement this rule at specific sites that would have the economic impact, if any, at those sites. The FAA will provide a Regulatory Evaluation (an analysis of the economic impact), a Trade Impact Analysis (an analysis of the impact of the rule on foreign trade), and a Regulatory Flexibility Determination (whether a proposal has a significant economic impact on a substantial number of small entities) when an ARSA is proposed at specific sites.

Accordingly, the FAA has determined that: (1) The amendment does not involve a major rule under Executive Order 12291; (2) the amendment is not significant nor does it require a full Regulatory Evaluation under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) it is certified that under the criteria of the Regulatory Flexibility Act that the amendment will not have a significant economic impact on a substantial number of small entities. In addition, this amendment, if adopted, would have little or no impact on trade opportunities for U.S. firms doing business overseas, or for foreign firms doing business in the U.S.

This rule is published less than 30 days prior to its effective date of March 14. By separate rulemaking published this date, FAA has established ARSA's at Austin, TX; Columbus, OH; and Baltimore, MD, to take effect on March 14. March 14 is the next publication for enroute low altitude navigation charts published by the National Ocean Survey. Pilots rely on these charts for flight information, and FAA considers it a matter of flight safety that the implementation date for each ARSA coincide with the publication date of the air navigation chart depicting the ARSA. The permanent Austin and Columbus ARSA's and the Baltimore ARSA cannot be established unless this rule, which promulgates the definition and operating rules for ARSA's is in effect. If these ARSA's are not established on March 14, the next subsequent chart publication date, and the next date on which the three ARSA's could become effective, is in September. FAA considers the establishment of the ARSA at Baltimore Airport to be of immediate importance and cannot accept a 6-month delay in implementation of this ARSA. Furthermore, controller training, revised coordination procedures among adjacent ATC facilities, and equipment display modifications have been undertaken at all these locations in preparation for the March 14 effective date. A 6-month delay in implementation would have a disruptive effect on the ATC facilities involved. For these reasons, and in consideration of the fact that the final rule is substantially identical to the proposal, the FAA finds that good cause exists for making the rule effective less than 30 days after publication.

Terminal Control Areas and Reporting Altitudes**Adopted: June 9, 1986****Effective: July 17, 1986****(Published in 51 FR 21906, June 17, 1986)**

SUMMARY: This action establishes the requirement to obtain an air traffic control (ATC) authorization for a nonemergency parachute jump in or into terminal control areas (TCA). Such authorization is currently required for other categories of controlled airspace and serves to prevent an uncontrolled jump in areas of heavy aircraft traffic. In addition, this action requires an aircraft operator and parachutist, as appropriate, to provide notice of altitude information in terms of mean sea level (MSL). Currently, altitudes are sometimes reported in levels above the ground, leading air traffic controllers and other pilots to misunderstand the altitude of the jump relative to other flight activity in the area.

FOR FURTHER INFORMATION CONTACT: Mr. Gene Falsetti, Airspace and Air Traffic Rules Branch, Airspace-Rules and Aeronautical Information Division, Air Traffic Operations Service, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D.C. 20591; telephone: (202) 267-9249.

SUPPLEMENTARY INFORMATION**HISTORY****Parachute Jumping in Terminal Control Areas**

On December 27, 1985, the FAA published a notice of proposed rulemaking which proposed that an aircraft operator obtain an ATC authorization prior to making a nonemergency parachute jump in or into a terminal control area. The same notice proposed that parachute jump altitude information be submitted to the FAA in terms of mean sea level rather than above ground level (50 FR 52933, Notice 85-26).

With respect to jumping in TCA's, it was explained in the preamble of the Notice that the TCA Program does not presently address the problem of separating TCA aircraft traffic from parachute jumpers who, because of the lack of a requirement in Part 105, may jump in or into TCA airspace without prior ATC authorization. Presently, such a requirement pertains to certain other airspace areas, namely, airport radar service areas, control zones, and positive control areas. Although ATC authorization is still required to enter a TCA, once this has been obtained, jumping in or into a TCA may begin at pilot or jumper prerogative. This is considered to be operationally unacceptable since unauthorized, uncontrolled parachute jumping is incompatible with the nature of TCA airspace. In TCA airspace, ATC separation services are meant to be provided to all airspace users to reduce the probability of midair collisions.

Altitude Notice Information

It was also explained in the preamble to the Notice that currently, in addition to authorization, notice is required for jumps in all airspace. In all cases, certain specific information is required to be submitted with the Notice. One item to be included in jump information is the altitude in terms of above ground level (AGL) at which jumping will take place.

In the Notice, it was explained that the requirement to submit altitude information in terms of AGL can create the potential for confusion. Some pilots of jump aircraft have reported actual operating altitude to ATC while in flight in terms of AGL rather than MSL. It is possible this has occurred because of the Notice requirement which states that altitude information must be given in terms of AGL. The confusion factor could be hazardous. In the flight environment, flight altitudes are expressed in terms of MSL. Therefore, controllers may naturally expect that altitudes reported by jump aircraft

ATC authorization for parachute jumps in or into an airport traffic area. Expansion of the rule to apply to airport traffic areas is not within the scope of this rulemaking action. If any future consideration where to be given in this area, it would be preceded by public notice.

This action entails a substitution of terms in an existing Notice requirement and application of an ATC authorization requirement to make a nonemergency jump in a TCA. Little or no impact is imposed and since the substitution of terms is seen as making no greater economic, energy, cost, or reporting demand on parachutists. The ATC authorization requirement is also seen as having minimal impact. This provision applies to a limited amount of nonemergency sport parachutist operations. There are presently 23 TCA's in the country with not current plans for increasing their number. Within the TCA's, there are relatively few published parachute jumping areas, usually two or less in each TCA. The areas that are published are generally located away from the primary airport and from primary arrival and departure routes. In addition, the rule would make no change to the requirement that ATC authorization be obtained before entry into a TCA. It would only require that an ATC authorization be obtained before jumping begins. The rule would help maintain the integrity of the TCA by ensuring that parachute operations are conducted free of traffic conflicts and are safely integrated into a positive separation environment that includes all other airspace activity. A regulatory evaluation of this proposal has been placed in the docket.

For the reasons set forth in the preamble to this rule, the FAA has determined that this document involves a regulation which is (1) not major under Executive Order 12291, and (2) not significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 28, 1979); and I certify that under the criteria of the Regulatory Flexibility Act, this rule will not have a significant economic impact on a substantial number of small entities. A copy of the regulatory evaluation prepared for this action may be obtained by contacting the person identified above under the caption "FOR FURTHER INFORMATION CONTACT."

The Amendment

Accordingly, Part 105, Subpart A of the Federal Aviation Regulations (14 CFR Part 105) is amended effective July 17, 1986.

Authority: 49 U.S.C. 1348, 1354, and 1421; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

in regard to airspace classifications. These changes are intended to: (1) simplify pilot requirements for operations in various classifications of airspace; (2) increase standardization of equipment requirements, visual flight rules (VFR) visibility and distance from cloud rules, and air traffic services offered in each class of airspace; and (3) satisfy the responsibilities of the United States as a member of the International Civil Aviation Organization (ICAO). The final rule also amends the requirement for minimum distance from clouds in certain airspace areas and the requirements for communications with air traffic control (ATC) in certain airspace areas; eliminates airport radar service areas (ARSAs), control zones, and terminal control areas (TCAs) as airspace classifications; and eliminates the term "airport traffic area." The FAA believes simplified airspace classifications will reduce existing airspace complexity and thereby enhance safety.

EFFECTIVE DATES: These regulations become effective September 16, 1993, except that §§ 11.61(c), 91.215(b) introductory text, 91.215(d), 71.601, 71.603, 71.605, 71.607, and 71.609 and Part 75 become effective December 12, 1991, and except that amendatory instruction number 20, § 71.1, is effective as of December 17, 1991 through September 15, 1993, and that §§ 71.11 and 71.19 become effective October 15, 1992. The incorporation by reference of FAA Order 7400.7 in § 71.1 (amendatory instruction number 20) is approved by the Director of the Federal Register as of December 17, 1991 through September 15, 1993. The incorporation by reference of FAA Order 7400.9 in § 71.1 (amendatory instruction number 24) is approved by the Director of the Federal Register as of September 16, 1993 through September 15, 1994.

FOR FURTHER INFORMATION CONTACT: Mr. William M. Mosley, Air Traffic Rules Branch, ATP-230, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591, telephone (202) 267-9251.

SUPPLEMENTARY INFORMATION:

Background

On April 22, 1982, the NAR plan was published in the *Federal Register* (47 FR 17448). The plan encompassed a review of airspace use and the procedural aspects of the ATC system. Organizations participating with the FAA in the NAR included: Aircraft Owners and Pilots Association (AOPA), Air Line Pilots Association (ALPA), Air Transport Association (ATA), Department of Defense (DOD), Experimental Aircraft Association (EAA), Helicopter Association International (HAI), National Association of State Aviation Officials (NASAO), National Business Aircraft Association (NBAA), and Regional Airline Association (RAA).

The main objectives of the NAR were to:

(1) Develop and incorporate a more efficient relationship between traffic flows, airspace allocation, and system capacity in the ATC system. This relationship will involve the use of improved air traffic flow management to maximize system capacity and to improve airspace management.

(2) Review and eliminate, wherever practicable, governmental restraints to system efficiency thereby reducing complexity and simplifying the ATC system.

(3) Revalidate ATC services within the National Airspace System (NAS) with respect to state-of-the-art and future technological improvements.

In furtherance of the foregoing objectives, several NAR task groups were organized and assigned to review various issues associated with airspace classifications and ATC procedures, pilot certification requirements, and aircraft equipment and operating requirements in the different categories of airspace

all aircraft.

Class B Airspace (U.S. Terminal Control Areas). Operations may be conducted under IFR, special visual flight rules (SVFR), or VFR. However, all aircraft are subject to ATC clearances and instructions. ATC separation is provided to all aircraft.

Class C Airspace (U.S. Airport Radar Service Areas). Operations may be conducted under IFR, SVFR, or VFR; however, all aircraft are subject to ATC clearances and instructions. ATC separation is provided to all aircraft operating under IFR or SVFR and, as necessary, to any aircraft operating under VFR when any aircraft operating under IFR is involved. All VFR operations will be provided with safety alerts and, upon request, conflict resolution instructions.

Class D Airspace (U.S. Control Zones for Airports with Operating Control Towers and Airport Traffic Areas that are not associated with a TCA or an ARSA). Operations may be conducted under IFR, SVFR, or VFR; however, all aircraft are subject to ATC clearances and instructions. ATC separation is provided to aircraft operating under IFR or SVFR only. All traffic will receive safety alerts and, on pilot request, conflict resolution instructions.

Class E Airspace (U.S. General Controlled Airspace). Operations may be conducted under IFR, SVFR, or VFR. ATC separation is provided only to aircraft operating under IFR and SVFR within a surface area. As far as practical, ATC may provide safety alerts to aircraft operating under VFR.

Class F Airspace (U.S. Has No Equivalent). Operations may be conducted under IFR or VFR. ATC separation will be provided, so far as practical, to aircraft operating under IFR.

Class G Airspace (U.S. Uncontrolled Airspace). Operations may be conducted under IFR or VFR. ATC separation is not provided.

Discussion of the Amendments and Public Comments

This final rule is based on Notice of Proposed Rulemaking (NPRM) No. 89-28 (54 FR 42916; October 18, 1989). The rule amends Parts 1, 11, 45, 61, 65, 71, 75, 91, 93, 101, 103, 105, 121, 127, 135, 137, 139, and 171 and Special Federal Aviation Regulations (SFAR) 51-1, 60, and 62. These parts either incorporate airspace designations and operating rules or amend the existing rule to meet the new classification language.

Amendments to Part 1 delete the definition of an "airport traffic area" and add definitions of "Special VFR conditions" and "Special VFR operations."

The amendments to Part 71 establish a new Subpart M—Jet Routes and Area High Routes that includes the existing rules in Part 75 as of *December 17, 1991*; revise §§71.11 and 71.19 as of October 15, 1992; and revise all of Part 71 to reclassify U.S. airspace in accordance with the ICAO designations as of September 16, 1993. (Further information on the amendments to Part 71 appears in this discussion under *Revisions to Part 71*.) Under this amendment the positive control areas (PCAs), jet routes, and area high routes are reclassified as Class A airspace areas; TCAs are reclassified as Class B airspace areas; ARSAs are reclassified as Class C airspace areas; control zones for airports with operating control towers and airport traffic areas that are not associated with the primary airport of a TCA or an ARSA are reclassified as Class D airspace areas; all Federal airways, the Continental Control Area, control areas associated with jet routes outside the Continental Control Area, additional control areas, control area extensions, control zones for airports without operating control towers, transition areas, and area low routes are reclassified as Class E airspace areas; and airspace which is not otherwise designated as the Continental Control Area, a control area, a control zone, a terminal control area, an airport radar service area, a transition area, or special use airspace is reclassified as Class G airspace. Because airport traffic areas are not classified as airspace areas, this amendment establishes controlled airspace for airports with operating control towers, but without control zones.

jurisdiction over the airspace concerned is permitted to authorize deviations from the transponder requirements in § 91.215(b) and that a request for a deviation due to an inoperative transponder or an operating transponder without operating automatic pressure altitude reporting equipment having Mode C capability may be made at any time. To provide maximum flexibility to ATC and aircraft operators, this amendment has an effective date of December 12, 1991.

Amendments to Parts 11, 45, 61, 65, 93, 101, 103, 105, 121, 127, 135, 137, 139, and 171 change the terminology to integrate the adopted airspace classifications into respective regulations that refer to those airspace assignments and operating rules. In addition, § 11.61(c) is amended to meet an administrative change within the FAA for titles of persons under the term "Director."

The final rule includes modifications to the proposed rules based on amendments to the FAR that have become effective since the publication of NPRM No. 89-28. The section numbers to Part 91 are changed to match the section numbers designated by Amendment No. 91-211, Revision of General Operating and Flight Rules (54 FR 34292; August 19, 1989). Sections 91.129 and 91.130 are modified to include revisions to § 91.130 by Amendment No. 91-215, Airport Radar Service Area (ARSA) Communication Requirement (55 FR 17736; April 26, 1990). Section 91.131(c) is modified to include revisions from Amendment No. 91-216, Navigational Equipment Requirement in a Terminal Control Area (TCA) and Visual Flight Rules (VFR) Operations (55 FR 24822; June 18, 1990). Section 91.117(a) is modified to include revision by Amendment No. 91-219, Revision to General Operating and Flight Rules (55 FR 34707; August 24, 1990).

Section 91.155(b)(1) is modified to include a revision by Amendment No. 91-224, Inapplicability of Basic VFR Weather Minimums for Helicopter Operations (56 FR 48088; September 23, 1991). Section 91.155(c) was revised by Amendment No. 91-213, Night-Visual Flight Rules Visibility and Distance from Cloud Minimums (55 FR 10610; March 22, 1990) and was corrected on July 19, 1990 (55 FR 29552) and November 13, 1990 (55 FR 47309).

In this amendment, the FAA does not adopt the proposal to lower the Continental Control Area to 1,200 feet above the surface and to establish the United States Control Area as proposed in NPRM No. 88-2. The FAA will not adopt this proposal and the regulatory agenda will be revised to delete the U.S. Control Area project.

On October 4, 1990, the FAA established SFAR No. 60—Air Traffic Control System Emergency Operations (55 FR 40758) and on December 5, 1990, the FAA established SFAR No. 62—Suspension of Certain Aircraft Operations from the Transponder with Automatic Pressure Altitude Reporting Capability Requirement (55 FR 50302). These SFARs are revised by replacing references to such terms as "terminal control area" with "Class B airspace area" to integrate the appropriate airspace classification.

Obsolete clauses in the existing rule are deleted and typographical errors in the proposal are corrected. The final rule also revises affected paragraphs of the existing rule requiring modification as a result of the rulemaking action but not included in NPRM No. 89-28. The modifications to these paragraphs replace such terms as "terminal control area" and "control zone" with language to integrate the appropriate airspace classification.

Under airspace reclassification, the Sabre U.S. Army Heliport (Tennessee) Airport Traffic Area will become a Class D airspace area; the Jacksonville, Florida, Navy Airport Traffic Area will become three separate but adjoining Class D airspace areas; and the El Toro, California, Special Air Traffic Rules will become part of the El Toro Class C airspace area. Currently, these airports operate under special air traffic rules in Subparts N, O, and R of Part 93. To achieve a goal of airspace reclassification, which is to simplify airspace, the existing rules for these airspace areas are to be deleted as of September 16, 1993. Therefore, this amendment removes and reserves Subparts N, O, and R of Part 93 as of September 16, 1993.

Part 75—Establishment of Jet Routes & Area High Routes		Part 71, Subpart M—Jet Routes & Area High Routes	
§ 75.1	Applicability.	§ 71.601	Applicability.
§ 75.11	Jet routes.	§ 71.603	Jet routes.
§ 75.13	Area routes above 18,000 feet MSL.	§ 71.605	Area routes above 18,000 feet MSL.
§ 75.100	Jet routes.	§ 71.607	Jet route descriptions.
§ 75.400	Area high routes.	§ 71.609	Area high route descriptions.

Sections 71.607, Jet route descriptions, and 71.609, Area high route descriptions are not set forth in the full text of this final rule. The complete listing for all jet routes and area high routes can be found in FAA Order 7400.7, *Compilation of Regulations*, which was last published as of April 30, 1991, and effective November 1, 1991. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of this order may be obtained from the Document Inspection Facility, APA-220, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591, (202) 267-3484. Copies may be inspected in Docket Number 24456 at the Federal Aviation Administration, Office of the Chief Counsel, AGC-10, Room 915G, 800 Independence Avenue, SW., Washington, D.C. 20591 weekdays between 8:30 a.m. and 5 p.m. or at the Office of the Federal Register, 1100 L Street, N.W., Room 8401, Washington, D.C. The Part 75 sections referenced in FAA Order 7400.7 will be redesignated as Part 71 sections in the next revision to FAA Order 7400.7.

The second revision amends existing § 71.11, Control zone, and § 71.19, Bearings; radials; miles, and is effective October 15, 1992. This revision relates to the FAA's parallel reviews of certain airspace areas. The revision to § 71.11 permits the Administrator to terminate the vertical limit of a control zone at a specified altitude. The revision to § 71.19 provides for the conversion from statute miles to nautical miles and consists of the same language as § 71.7 that is effective September 16, 1993. More detail on the review of certain airspace areas is found under the title *Implementation of Airspace Reclassification*.

The third revision to Part 71 establishes a new Part 71 that includes the adopted airspace designations. This amendment, which is effective September 16, 1993, transfers the current sections of existing Part 71, including Subpart M—Jet Routes and Area High Routes, to this new Part 71. The following table lists the sections of existing Part 71, including Subpart M and the corresponding sections in the new Part 71, that are effective September 16, 1993. Subparts B through K and §§ 71.501(b), 71.607, and 71.609, which list airspace descriptions, are not set forth in the full text of this final rule. The complete listing for these airspace designations can be found in FAA Order 7400.9, *Airspace Reclassification*, which is effective September 16, 1993. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of this order may be obtained from the Document Inspection Facility, APA-220, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591, (202) 267-3484. Copies may be inspected in Docket Number 24456 at the Federal Aviation Administration, Office of the Chief Counsel, AGC-10, Room 915G, 800 Independence Avenue, SW., Washington, D.C. 20591 weekdays between 8:30 a.m. and 5 p.m. or at the Office of the Federal Register, 1100 L Street, N.W., Room 8401, Washington, D.C.

Existing Part 71

Subpart A—General

Revised Part 71 that is effective September 16, 1993, and FAA Order 7400.9

Subpart A—General; Class A airspace

§ 71.11	Control zones.	Not applicable.
§ 71.12	Terminal control areas.	§ 71.41 Class B airspace.
§ 71.13	Transition areas.	§ 71.71 Class E airspace.
§ 71.14	Airport radar service areas.	§ 71.51 Class C airspace.
§ 71.15	Positive control areas.	§ 71.31 Class A airspace.
§ 71.17	Reporting points.	§ 71.5 Reporting Points.
§ 71.19	Bearings; Radials; Miles.	§ 71.7 Bearings, radials, mileages.
Subpart B—Colored Federal Airways		Subpart E—Class E Airspace
§ 71.101	Designation.	Subpart E of FAA Order 7400.9.
§ 71.103	Green Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.105	Amber Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.107	Red Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.109	Blue Federal airways.	Subpart E of FAA Order 7400.9.
Subpart C—VOR Federal Airways		Subpart E—Class E Airspace
§ 71.121	Designation.	§ 71.79 Designation of VOR Federal airways.
§ 71.123	Domestic VOR Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.125	Alaskan VOR Federal airways.	Subpart E of FAA Order 7400.9.
§ 71.127	Hawaiian VOR Federal airways.	Subpart E of FAA Order 7400.9.
Subpart D—Continental Control Area		Subpart E—Class E Airspace
§ 71.151	Restricted areas included.	Subpart E of FAA Order 7400.9.
Subpart E—Control Areas and Control Area Extensions		Subpart E—Class E Airspace
§ 71.161	Designation of control areas associated with jet routes outside the continental control area.	§ 71.71 Class E airspace and Subpart E of FAA Order 7400.9.
§ 71.163	Designation of additional control areas.	§ 71.71 Class E airspace and Subpart E of FAA Order 7400.9.
§ 71.165	Designation of control areas extensions.	Subpart E of FAA Order 7400.9.
Subpart F—Control Zones		Subpart D—Class D Airspace
§ 71.171	Designation.	Subpart E—Class E Airspace Subpart D of FAA Order 7400.9.

<i>Subpart I—Reporting Points</i>		<i>Subpart H—Reporting Points</i>	
§ 71.201	Designation.	§ 71.901	Applicability.
§ 71.203	Domestic low altitude reporting points.		Subpart H of FAA Order 7400.9.
§ 71.207	Domestic high altitude reporting points.		Subpart H of FAA Order 7400.9.
§ 71.209	Other domestic reporting points.		Subpart H of FAA Order 7400.9.
§ 71.211	Alaskan low altitude reporting points.		Subpart H of FAA Order 7400.9.
§ 71.213	Alaskan high altitude reporting points.		Subpart H of FAA Order 7400.9.
§ 71.215	Hawaiian reporting points.		Subpart H of FAA Order 7400.9.
<i>Subpart J—Area Low Routes</i>		<i>Subpart E—Class E Airspace</i>	
§ 71.301	Designation.		Subpart E of FAA Order 7400.9.
<i>Subpart K—Terminal Control Areas</i>		<i>Subpart B—Class B Airspace</i>	
§ 71.401(a)	Designation.		Subpart B of FAA Order 7400.9.
§ 71.401(b)	Terminal control areas.		Subpart B of FAA Order 7400.9.
<i>Subpart L—Airport Radar Service Areas</i>		<i>Subpart C—Class C Airspace</i>	
§ 71.501	Designation.		Subpart C of FAA Order 7400.9.
<i>Subpart M—Jet Routes and Area High Routes</i>		<i>Subpart A—General; Class A Airspace</i>	
§ 71.601	Applicability.		Not applicable.
§ 71.603	Jet routes.		Subpart A of FAA Order 7400.9.
§ 71.605	Area routes above 18,000 feet MSL.		Subpart A of FAA Order 7400.9.
§ 71.607	Jet route descriptions.		Subpart A of FAA Order 7400.9.
§ 71.609	Area high route descriptions.		Subpart A of FAA Order 7400.9.

Discussion of Comments

A total of 205 commenters submitted comments to Docket No. 24456 on NPRM No. 89-28. The FAA considered these comments in the adoption of this rule and changes to the proposals were made accordingly. Some comments did not specifically apply to any particular proposal addressed in NPRM No. 89-28. These comments related to the requirements for a transponder with Mode C capabilities, the FAA's anti-drug program, and the proposed TCA for the Washington-Baltimore metropolitan area.

Comments submitted on NPRM No. 89-28 reflect the views of a broad spectrum of the aviation public. The commenters included individuals as well as organizations representing commercial and general aviation pilots. Organizations that commented on NPRM No. 89-28 include: AOPA, ALPA, Air Traffic

One hundred and forty-one comments on the proposal to reclassify U.S. airspace to international standards were submitted. Sixty-eight supported reclassification and 69 opposed reclassification. Four commenters neither supported nor opposed the reclassification effort, but offered observations.

The 68 supporting comments include those submitted by the ATA, ATCA, and COPA. The COPA stated that on an average, approximately 60,000 general aviation aircraft cross the U.S./Canadian border each year. Some commenters stated that the proposed classifications are easier to understand than the current classifications and noted that the proposed classifications would help develop standardization. Two flight instructors commented that the proposed classifications would aid in the teaching of the airspace system to new pilots.

The 69 opposing comments include the Arizona Pilots Association, EAA, and SSA. Several comments, including EAA's, asserted that the current airspace designation names are more descriptive, and hence, easier to remember. Several comments, including one from the Arizona Pilots Association, stated that the proposal would cause confusion, while other commenters alleged that the proposal would only benefit pilots who operate internationally.

Both the SSA and the Arizona Pilots Association recommend that existing airspace nomenclature be retained and a table be included in the *Airman's Information Manual* (AIM) or Part 91 to correlate U.S. airspace designations and ICAO equivalents.

The four comments submitted that do not directly support or oppose the proposal include those from the Alaska Airmen's Association, ALPA, and AOPA. The AOPA expressed concerns about how pilots would be reeducated during the transition phase that would precede the adoption of the proposed airspace reclassification. AOPA recommended that the FAA take five steps to ensure proper pilot education: (1) convene a government, industry, and user meeting before the issuance of a final rule to consider the implications of final rule adoption; (2) ensure that all necessary funding is in place, including monies for the specific purpose of pilot education; (3) adopt a dual airspace system during the transition phase; (4) coordinate with the National Oceanic and Atmospheric Administration (NOAA) to ensure that all charts are printed in a timely manner; and (5) amend the flight review requirements to reflect explicitly the need to discuss airspace classifications. The FAA agrees that the aviation public needs to be educated in airspace reclassification. Therefore, the FAA has developed an education and transition program, which is discussed under "Education of the Aviation Community."

As proposed, the FAA will reclassify U.S. airspace in accordance with ICAO standards. Airspace areas, with the exception of special use airspace (SUA) designations, will be classified by a single alphabet character. The FAA believes that reclassification of U.S. airspace simplifies the airspace system, achieves international commonality, enhances aviation safety, and satisfies the responsibility of the United States as a member of ICAO.

Some commenters misunderstood the proposal on airspace reclassification. These commenters understood Class A airspace areas to be en route airspace and Class B, Class C, and Class D airspace areas to be terminal airspace. The recommended ICAO airspace classes are not based on whether the airspace area is designated for "en route" or "terminal" operations, but rather on other factors that include type of operation (i.e., IFR, VFR) and ATC services provided. (The table below lists the new airspace classifications, its equivalent in the existing airspace classification, and its features, which would apply to terminal and en route airspace areas.) For example, under this rule Class C airspace is designated in terminal areas. Class C airspace in another country could be designated in en route areas. However, the type of operation, ATC services provided, minimum pilot qualifications, two-way radio requirements, and VFR minimum visibility and distance from cloud requirements in that country's Class C airspace will be similar to the Class C airspace areas designated in the United States. As adopted by the FAA, Class A airspace areas are designated in positive control en route areas; Class B, Class C, and Class D airspace areas are designated in terminal areas; and Class E airspace areas are designated in both en route (low altitude) and terminal areas. However, the rules are written in a manner that the classes of airspace will not be limited to terminal or en route airspace areas. For example, if a regulation

Operations Permitted	IFR	IFR and VFR	IFR and VFR	IFR and VFR	IFR and VFR	IFR and VFR
Entry Prerequisites	ATC clearance	ATC clearance	ATC clearance for IFR Radio contact for all	ATC clearance for IFR Radio contact for all	ATC clearance for IFR Radio contact for all IFR	None
Minimum Pilot Qualifications	Instrument rating	Private or student certificate	Student certificate	Student certificate	Student certificate	Student certificate
Two-way radio communications	Yes	Yes	Yes	Yes	Yes for IFR operations	No
VFR Minimum Visibility	Not applicable	3 statute miles	3 statute miles	3 statute miles	*3 statute miles	**1 statute mile
VFR Minimum Distance from Clouds	Not applicable	Clear of clouds	500 feet below, 1,000 feet above, and 2,000 feet horizontal	500 feet below, 1,000 feet above, and 2,000 feet horizontal	*500 feet below, 1,000 feet above, and 2,000 feet horizontal	**500 feet below, 1,000 feet above, and 2,000 feet horizontal
Aircraft Separation	All	All	IFR, SVFR, and runway operations	IFR, SVFR and runway operations	IFR, SVFR	None
Conflict Resolution	Not applicable	Not applicable	Between IFR and VFR operations	No	No	No
Traffic Advisories	Not applicable	Not applicable	Yes	Workload permitting	Workload permitting	Workload permitting
Safety Advisories	Yes	Yes	Yes	Yes	Yes	Yes

*Different visibility minimum and distance from cloud requirements exist for operations above 10,000 feet MSL.

**Different visibility minima and distance from cloud requirements exist for night operations, operations above 10,000 feet MSL, and operations below 1,200 feet AGL.

Offshore Airspace

The FAA adopts, as proposed, the NAR recommendations NAR 3-2.1.1—Offshore Airspace Nomenclature, NAR 3-2.1.2—Offshore Control Area Uniform Base, NAR 3-2.1.3—Offshore Control Area Identification, and NAR 3-2.1.4—Offshore Airspace Classification, which consider offshore airspace areas. However, NAR 3-2.1.2, which recommends a uniform base for offshore control areas of 1,200 feet above the surface unless otherwise designated, and NAR 3-2.1.3, which recommends that offshore control areas be identified with a name as opposed to a number are contingent on the FAA's further review. (More details on the review process appear later in this document under the title *Implementation of Airspace Reclassification*.) Any changes to offshore airspace areas resulting from the FAA's review will be accomplished by separate rulemaking actions. The FAA's review is being conducted in compliance with Executive Order 10854, which requires FAA consultation with both the Departments of State and Defense before designating controlled international airspace. The FAA expects that most offshore airspace areas will be classified as Class E or Class A airspace areas.

AIRSPACE RECLASSIFICATION TRANSITION

<i>Tentative Date</i>	<i>Event</i>
October 15, 1992	First sectional aeronautical charts (SAC), world aeronautical charts (WAC), and terminal aeronautical charts (TAC) are published with legends that indicate both existing and future airspace classifications.
March 4, 1993	Initial charting changes are completed for the SAC and TAC.
June 24, 1993	North Pacific, Gulf of Mexico, and Caribbean planning charts are published with legends that indicate both existing and future airspace classifications.
August 19, 1993	Flight Case Planning and North Atlantic Route charts are published with legends that indicate existing and future airspace classifications.
September 16, 1993	New airspace classifications become effective. All charts begin publication with legends that indicate both the new airspace classification and the former airspace classification. All related publications are updated.
March 3, 1994	First charts are published with legends that only indicate the new airspace classifications.
August 17, 1994	All charts are published with legends that only indicate the new airspace classifications.

Coordination with a task group of the IACC and the NOS will continue throughout the transition. An anticipated modification to the symbols on aeronautical charts is the addition of a segmented magenta line to represent the controlled airspace area for airports without operating control towers that extends upward from the surface (Class E airspace). A segmented blue line (which currently depicts a control zone) will denote a Class D airspace area, the controlled airspace for airports with operating control towers that are not the primary airport of a TCA or an ARSA.

The legends in aeronautical charts will include both the existing airspace classifications and the airspace classifications to be effective September 16, 1993. For example, the solid blue line that symbolizes a TCA will be followed by "TCA (Class B)." The first charts with a dual legend will be published October 15, 1992. Commencing September 16, 1993, the legends on these charts will be reversed [e.g., a solid blue line will be followed by "Class B (TCA)"]. Between March 3 and August 17, 1994, the use of dual indication legends will be phased out.

Between October 1992 and March 1993, educational materials such as pocket guides, a video, and posters will be issued to instruct the aviation public on airspace reclassification. The FAA will begin to update the AIM and other publications, as well as FAA orders, manuals, handbooks, and advisory circulars that must be revised to include the new airspace classifications and an explanation of the transition and implementation procedures.

The transition and implementation of the Airspace Reclassification final rule also will include parallel reviews of certain current airspace designations to meet the new airspace classifications. A full discussion on this review appears later in this document under the title *Implementation of Airspace Reclassification*.

Class A Airspace

NPRM No. 89-28 proposed to reclassify the PCAs as Class A airspace areas with no other alterations to this airspace. Four commenters, including AOPA, neither supported nor opposed this classification; however, they offered comments and modifications. Some commenters stated that if the FAA adopts

Class B Airspace

NPRM No. 89-28 proposed to reclassify TCAs as Class B airspace areas and to amend the minimum distances by which aircraft operating under VFR must remain from clouds. The current VFR minimum distance requirements of 500 feet below, 1,000 feet above, and 2,000 feet horizontal from clouds will be amended to require that the pilot must remain clear of clouds.

One comment supports and two comments specifically oppose the proposed reclassification. Twelve comments on the proposal to amend minimum distance from clouds for VFR operations in Class B airspace areas were received. Eight of these comments support and four oppose the proposal.

The comments submitted in support of the proposal to reclassify TCAs as Class B airspace areas and to modify the minimum distances from cloud for VFR operations include those from AOPA, the Alaska Airmen's Association, EAA, and SSA. AOPA stated that the proposal "is a positive step in improvement of VFR traffic flow within" Class B airspace areas.

A commenter in support of reclassification stated that some of the areas to be classified as Class B airspace areas could be redesignated as Class C airspace areas.

The four comments submitted in opposition to the proposed amendment on distance from cloud requirements for VFR operations include a comment from ALPA. Some commenters stated that the proposal to modify the minimum distance from clouds for VFR flight in Class B airspace areas reduces the existing margin of safety. ALPA further stated that the ability of a pilot to maintain visual contact with other aircraft is reduced if aircraft operate in close proximity to clouds. One commenter stated that the proposals do not answer the need for clear radio failure procedures in Class B airspace areas. Another commenter stated that Class B airspace areas are actually divided into two types of Class B airspace: one in which a private pilot certificate is required and one in which, at a minimum, only a student pilot certificate is required.

This rulemaking reclassifies existing airspace areas with the equivalent recommended ICAO airspace area. It does not redesignate existing airspace areas. For example, the redesignation of a Class B airspace area (TCA) to a Class C airspace area (ARSA) is beyond the scope of this rulemaking. The FAA believes that the elimination of terminal areas designated as Class B airspace areas would create a substantial adverse impact on the safe and efficient control of air traffic in those high volume terminal areas. Class B airspace areas, like the TCAs that preceded them, provide more efficient control in terminal areas where there is a large volume of air traffic and where a high percentage of that traffic is large turbine-powered aircraft. Additionally, on July 25, 1991, the FAA revised FAA Order 7110.65, *Air Traffic Control*, by adopting specific separation standards for operations under VFR in existing TCAs. These standards require air traffic controllers to separate aircraft operating under VFR in existing TCAs from other aircraft operating under VFR and IFR.

As stated in NPRM No. 89-28 in response to NAR 1-7.2.9—Recommended VFR Minima, the FAA views the relaxation of the distance from cloud requirements for VFR operations as a modification that would enhance rather than reduce safety. Under the existing regulations, a pilot operating an aircraft under VFR in a TCA (Class B airspace) is provided with ATC services and is subject to ATC clearances and instructions. For the pilot operating under VFR to remain specific distances from clouds, the pilot must alter course or assigned heading/route, which is a disruption to traffic flow and could be a compromise to safety. The amendment will increase safety for pilots operating under VFR and ATC by permitting these pilots to remain clear of clouds in Class B airspace areas, but not requiring them to remain a specific distance from clouds. However, if an ATC instruction to a pilot operating an aircraft under VFR could place that aircraft in a cloud, FAR §91.3, *Responsibility and authority of the pilot in command*, requires the pilot in command to be responsible for ensuring that the aircraft does not enter a cloud and any such ATC instruction may be refused.

The FAA accepted NAR 1-7.3.3—Pilot Requirements for Operations in a TCA, under the provisions of the existing requirements; hence, the reclassification of TCAs as Class B airspace areas meets existing regulations on minimum airman certificate levels. Section 61.95 of the FAR, which lists student pilot requirements for operations in a TCA (Class B airspace), is revised to meet the new airspace classification. Solo student pilot activity is, under both the existing regulations and this final rule, prohibited at certain airports.

Class C Airspace

Three comments were submitted on the reclassification of ARSAs as Class C airspace areas. None of the comments specifically support or oppose the reclassification. All of the comments, including one from EAA, addressed additional modifications.

Two commenters noted that the proposal for VFR operations in Class B airspace areas to remain clear of clouds could be applied to Class C airspace areas.

In its comment, EAA opposed any increase in the size of Class C airspace areas. Other recommendations by commenters included the need for clear radio failure procedures and the need for designated areas that do not require communications with ATC when the pilot desires to use an uncontrolled airport within Class C airspace areas.

As proposed, the FAA will reclassify ARSAs as Class C airspace areas. No other modifications to Class C airspace areas or changes in operating rules were proposed. An ARSA that currently operates on a part-time basis is classified as Class C part-time and Class D or Class E at other times.

Aircraft operating under VFR in Class C airspace areas operate under less stringent requirements than aircraft operating under VFR in Class B airspace areas and are not provided the same separation by ATC. Therefore, the relaxation of the VFR distance from cloud requirements in Class C airspace areas to remain clear of clouds would not be in accordance with safety precautions. As noted earlier, lost communication procedures are addressed in paragraph 470, Two-way Radio Communications Failure, of the AIM. Since Class C airspace areas often have a high number of aircraft that operate under IFR, a relaxation of existing communications requirements would not be in the interest of safety. Any modifications to the dimensions or operating requirements for Class C airspace areas are outside the scope of this rulemaking.

Class D Airspace

NPRM No. 89-28 proposed to reclassify control zones for airports with operating control towers and airport traffic areas, not associated with a TCA or an ARSA, as Class D airspace areas. In addition, NPRM No. 89-28 proposed to: (1) raise the ceiling to up to, and including, 4,000 feet from the surface of the airport; (2) require aircraft in Class D airspace areas to establish two-way radio communications with ATC; and (3) convert the lateral unit of measurement from statute miles to nautical miles.

One hundred and forty comments concerning the proposal to establish the ceiling of the Class D airspace areas at 4,000 feet above the surface were submitted. All of the comments opposed the proposal.

Of the 83 comments regarding the proposal to require pilots who operate in Class D airspace areas to establish two-way radio communications with ATC, two supported the proposal and 80 opposed it. One comment neither supported nor opposed the proposals.

One hundred and forty-three comments related to the proposal to convert the lateral unit of measurement of Class D airspace areas from statute to nautical miles were submitted. Most interpreted the proposal to mean that the lateral size of the airspace areas would change from 5 statute miles to 5 nautical miles. (The FAA's intent in NPRM No. 89-28 is to convert statute miles as a unit of measurement to the equivalent in nautical miles.) Twelve comments supported and 131 comments opposed the proposal.

The 140 commenters that opposed the proposed ceiling of 4,000 feet above the surface included AOPA, the Alaska Airmen's Association, the Arizona Pilots Association, EAA, the Ohio Department of Transportation, and SSA. These same organizations are represented in the 131 comments that opposed the proposed conversion from statute to nautical miles and the 80 comments that oppose the proposed two-way radio communications requirements with ATC.

Several comments, including one from EAA, were submitted on the effects of the proposed ceiling modification and communications requirements on operations under SFAR No. 51-1—Special Flight Rules in the Vicinity of Los Angeles International Airport. According to the comments, the proposal would raise the ceiling of the airport traffic areas at Santa Monica and Hawthorne Airports into the Special Flight Rules Area. The commenters also stated that the proposed two-way radio communication requirements with ATC may not allow aircraft, especially those with one radio, to listen to an advisory frequency.

Some commenters, including SSA, stated that airport traffic areas (Class D airspace) could be depicted on aeronautical charts. Several commenters, including AOPA, the Alaska Airmen's Association, EAA, and the Ohio Department of Transportation stated that the proposals would increase air traffic controller workload. Some comments, including one from AOPA, stated that the proposal would increase pilot workload or that no safety benefit exists for the proposed modifications.

Several commenters, including AOPA and EAA, requested that the ceiling of Class D airspace areas be lowered to 2,000 feet or 2,500 feet above the surface. The commenters stated that the lower altitudes are adequate for the arrival and departure of aircraft. Other commenters, including the Alaska Airmen's Association and SSA, recommended retaining the current ceiling of 3,000 feet above the surface.

Commenters stated that the proposals for modifying the size of airspace and for requiring two-way radio communications with ATC would be a burden to aircraft that fly at low altitudes, and that some aircraft would need to fly a minimum of 5,500 feet MSL as opposed to 3,500 feet MSL. Some commenters stated that the proposal would burden pilots of airplanes that do not have radios. One commenter noted that pilots who fly older aircraft with no radios or navigational aids do not pose a threat to commercial aviation.

Several comments, including those submitted by the AOPA and the Alaska Airmen's Association, stated that the proposal for two-way radio communications with ATC would not permit aircraft to listen to the common traffic advisory frequency (CTAF) of satellite airports. Additional comments, including those submitted by the AOPA and EAA, noted that air traffic controllers in control towers cannot provide effective traffic advisories for satellite airports. Some commenters, including EAA and the Ohio Department of Transportation, stated that the proposed two-way radio communication requirements with ATC are not necessary because operations at satellite airports usually do not interfere with airports with operating control towers. Another commenter noted that a pilot who desires to use a satellite airport and needs to fly near an airport with an operating control tower would need to notify the local ATC facility.

Commenters, including the Arizona Pilots Association and EAA, recommended that the lateral unit of measurement of Class D airspace areas be designated at 4 nautical miles.

As proposed, control zones for airports with operating control towers and airport traffic areas that are not associated with a TCA or an ARSA are reclassified as Class D airspace areas. After considering public comment and re-examining technical criteria, the FAA has determined that: (1) the ceiling of a Class D airspace area (designated for an airport) will normally be designated at 2,500 feet above the surface of the airport converted to mean sea level (MSL), and rounded to the nearest 100 foot increment; (2) two-way radio communications with ATC will be required; and (3) the lateral dimensions will be expressed in nautical miles rounded up to the nearest tenth of a mile. The actual lateral and vertical dimensions will be determined on an individual basis using revised criteria in FAA Order 7400.2C, *Procedures for Handling Airspace Matters*. (More detail on the review of airspace appears under the title *Implementation of Airspace Reclassification*.)

A goal of airspace reclassification is to enhance safety. The FAA is of the opinion that the existing airspace designations of an ARSA, which has a ceiling of "up to and including" 4,000 feet above the surface, and an airport traffic area, which has a ceiling of "up to, but not including," 3,000 feet above the surface, has caused confusion, which does not enhance safety. To promote uniformity, the FAA in NPRM No. 89-28 proposed that the ceiling of Class C, Class D, and Class E airspace areas that extend upward from the surface be established at "up to, and including" 4,000 feet above the surface. Many of the comments on this proposal were opposed to this modification. As previously stated, the FAA has determined that the ceiling of Class D airspace areas will normally be designated at up to, and including, 2,500 feet above the surface of the airport expressed in MSL. To further enhance uniformity, the ceiling of Class E airspace areas that extend upward from the surface normally will also have a ceiling established at up to, and including, 2,500 feet above the surface of the airport expressed in MSL. A ceiling of 2,500 feet above the surface will provide adequate vertical airspace to protect traffic patterns. However, the FAA emphasizes that the ceiling of a Class D or a Class E airspace area will reflect the conditions of the particular airspace area. For example, if local conditions warrant, the ceiling could be designated at more than 2,500 feet above the surface (e.g., 2,700 or 3,000 feet above the surface). Conversely, some airports with limited volume of nonturbine-powered aircraft may have a lower vertical limit.

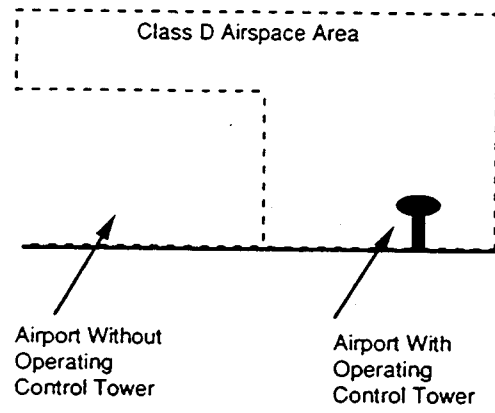
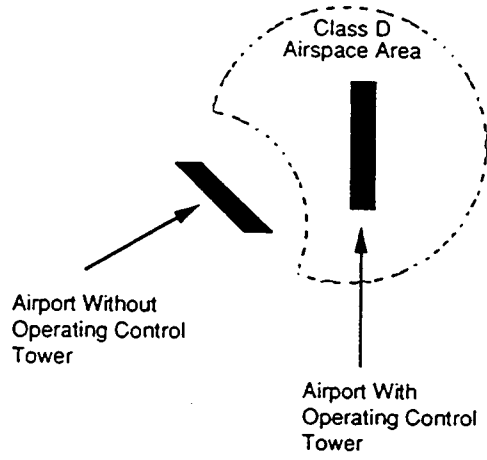
The decision to use 2,500 feet above the surface is based on recent FAA analysis of vertical airspace necessary to protect traffic patterns and a review of public comment to lower the ceiling of an airport traffic area. The FAA's analysis demonstrates that the 2000-foot vertical limit is insufficient since it often does not protect traffic patterns for high performance aircraft.

Two-Way Radio Communications in and Lateral Dimensions of Class D Airspace Areas

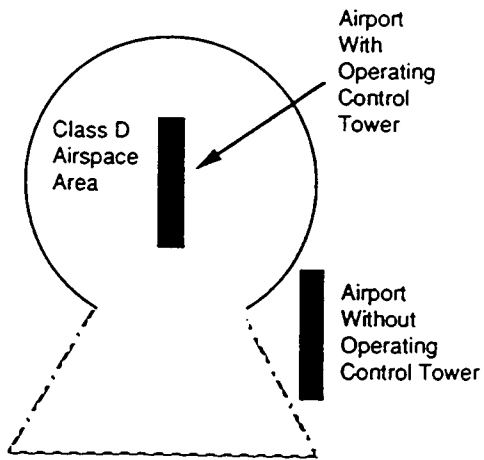
The FAA has determined that in order to meet safety standards, two-way radio communications with ATC must be established in Class D airspace areas. Task Group 1-2.3, which recommended NAR 1-2.3.2—Two-Way Radio Requirements in Airport Traffic Areas, stated that "pilots have been issued violations, or critical injuries have occurred because pilots were not in compliance with the two-way radio communications requirements."

The FAA also has determined that the lateral distance of Class D airspace areas will be based on the instrument procedures for which the controlled airspace is established. Therefore, the dimensions may not be in a circular shape that is similar to the current airport traffic areas or control zones.

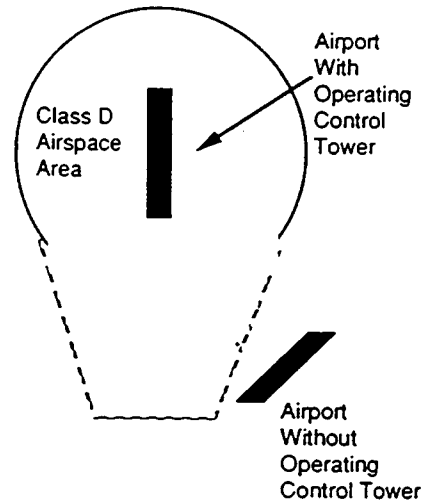
Many commenters stated that the communications requirements associated with operations at satellite airports within Class D airspace areas would prevent them from using CTAF procedures. The FAA generally agrees with these comments; consequently, the FAA will individually review control zones and associated transition areas that are not associated with the primary airport of a TCA or an ARSA. The review of the designation of Class D airspace areas will be conducted to determine the necessary size of the area and will exclude satellite airports to the maximum extent practicable and consistent with safety. For example, a satellite airport without an operating control tower might have a Class E airspace area carved out of a Class D airspace area, or a Class E airspace area might be placed under a shelf of a Class D airspace area. (See Figure 1.) In another example, the portions of an existing control zone that extend beyond the existing limits of an airport traffic area (extension used for instrument approaches) may be designated only by using the airspace necessary under the terminal instrument procedures (TERPs) criteria. (See Figure 1.) When a satellite airport is excluded, a pilot who is operating an aircraft in the immediate vicinity of that satellite airport and who does not otherwise penetrate airspace where two-way radio communications with ATC are required will be free to communicate on the CTAF of that satellite airport.



**TERPS' Trapezoid
Going Toward
the NAVAID**



**TERPS' Trapezoid
Going Away from
the NAVAID**



towers, transition areas, and area low routes. The two commenters supported nor opposed the proposal, but offered suggestions.

One commenter noted that the current names are descriptions of how the airspace area is to be used (i.e., transition areas, airways) and that under the proposal, airways would still be necessary. The SSA recommended the continued use of the term "control zone" for airspace extending upward from the surface that is independent of Class B, Class C, or Class D airspace areas. They also recommended that control zones should extend to the floor of overlying controlled airspace. One commenter recommended that the floor of Class E airspace areas that are now 1,200 feet above ground level (AGL) be raised to 1,500 or 2,200 feet AGL and noted that the floor of Class E airspace areas should not be below the minimum en route IFR altitude (MEA) in mountainous regions.

The FAA will adopt the classification of Class E airspace areas as proposed. This classification will not eliminate the requirement for Federal airways, which are specified in Part 71. However, this classification will eliminate the designation of control zones. Control zones for airports without operating control towers are classified as Class E airspace areas designated for an airport that extend upward from the surface.

The FAA believes that the reclassification of control zones for airports without operating control towers as Class E airspace areas will not cause confusion. As noted earlier, such airspace areas will be depicted on visual aeronautical charts by a segmented magenta line. Under existing regulations, a control zone usually has a 5-statute mile radius and ascends to the base of the Continental Control Area. The FAA's review process, using the revised criteria in FAA Order 7400.2C, will look at the dimensions of each control zone and associated transition areas. Each review will include a review of instrument approach procedures, as well as local terrain to determine the actual airspace needed to contain IFR operations.

The floor of Class E airspace areas, which do not extend upward from the surface, will remain the same as existing airspace areas (e.g., 700 feet AGL, 1,200 feet AGL, 1,500 feet AGL, 14,500 feet MSL). Any modifications to the floor of Class E airspace areas are beyond the scope of this rulemaking.

Class G Airspace

NPRM No. 89-28 proposed to reclassify airspace that is not otherwise designated as the Continental Control Area, a control area, a control zone, a terminal control area, a transition area, or SUA as Class G airspace areas. Of the six comments submitted, four comments opposed the proposal and two offered suggestions.

The four opposing comments, including EAA's comment, understood the Class G airspace areas to be airspace below 700 feet AGL.

The two comments that neither supported nor opposed the proposal included the comment from the ATA. The ATA recommended that Class G airspace areas be designated as Class F airspace areas.

The FAA has determined that all navigable airspace areas not otherwise designated as Class A, Class B, Class C, Class D, or Class E airspace areas or SUA are classified as Class G airspace areas. Since the proposal to replace the Continental Control Area with the U.S. control area in NPRM No. 88-2 was not adopted, the vertical limit of Class G airspace areas will vary (e.g., 700 feet AGL, 1,200 feet AGL, 1,500 feet AGL, 14,500 feet MSL). In addition, the flight visibility and distance from cloud requirements for operations under VFR proposed in NPRM No. 89-28 are modified to remain consistent with the existing requirements in §§ 91.155 and 103.23.

Class F airspace is omitted from the U.S. airspace classifications because this airspace, as adopted by ICAO, does not have a U.S. equivalent. Class G airspace, as adopted by ICAO, is the equivalent of U.S. uncontrolled airspace.

of airspace areas will be proposed in future FAA rulemaking actions.

Three commenters, including the Alaska Airmen's Association and SSA, noted that NPRM No. 89-28 proposed to define controlled airspace in FAR § 1.1 as airspace in which "all aircraft may be subject to ATC" rather than airspace in which "some or all aircraft may be subject to ATC." According to one commenter, because aircraft operating under VFR are not always subject to ATC in controlled airspace, especially Class E airspace, the current definition is more accurate.

The proposed definition of controlled airspace is adopted in essence but it has been modified to correspond with ICAO's definition of a controlled airspace. Subsequent to the publication of NPRM No. 89-28, ICAO modified its definition of controlled airspace to read as follows: "*Controlled airspace*. An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification. Note—Controlled airspace is a generic term which covers ATS [air traffic services] in airspace Classes A, B, C, D, and E." The proposed FAA definition in NPRM No. 89-28 read: "*Controlled airspace* means airspace designated as Class A, Class B, Class C, Class D, or Class E airspace in Part 71 of this chapter and within which all aircraft may be subject to air traffic control."

While the commenter is essentially correct that all aircraft are not always subject to air traffic control, any aircraft may be subject to ATC if the pilot operates under IFR or if the pilot requests and receives air traffic services. The FAA believes that misunderstandings would be minimized with the adoption of the ICAO definition. The ICAO definition and the proposed definition are essentially synonymous; however, the FAA is confident the adoption of the ICAO definition is consistent with the objectives of airspace reclassification and that it is beneficial to have a common international definition of controlled airspace.

Four commenters, including EAA and SSA, noted that NPRM No. 89-28 only permits Special VFR operations for the purposes of departing from or arriving at an airport. The commenters stated that such a restriction of Special VFR operations would affect pipeline patrol, aerial photography, law enforcement, agricultural, and other special types of operations. EAA also stated that the proposed limitation of 4,000 feet above the surface for Special VFR operations could prevent pilots from climbing to the top of a haze layer.

The FAA will continue to permit Special VFR operations for through flights as well as flights for arrival or departure. Because control zones will be eliminated under Airspace Reclassification, Special VFR operations are only permitted within the ceiling and lateral boundaries of the surface areas of the Class B, Class C, Class D, or Class E airspace designated for an airport. Because the proposal for a uniform ceiling for Class C, Class D, and Class E airspace areas at 4,000 feet above the surface is not adopted, the boundaries of the airspace area in which Special VFR operations are permitted will vary. For example, if a Class C airspace area has a ceiling designated at 4,500 feet MSL and a surface area designated within a 5-nautical mile radius from the airport, Special VFR operations are permitted within that 5-nautical mile radius up to and including 4,500 feet MSL.

One commenter, a flight instructor with a petition signed by additional flight instructors, stated that the language in the proposal on aerobatic flight is vague and could be interpreted to restrict aerobatic operations within existing transition areas and other less crowded airspace areas. The commenter was concerned that the proposed § 91.71(c) could affect spin training at flight schools.

Under this amendment, the term "control zone" will be eliminated. However, the FAA desires to continue restrictions that currently exist in the FAR on operations within control zones. These restrictions will now apply within the lateral boundaries of the surface areas of the Class B, Class C, Class D, or Class E airspace designated for an airport. For example, if a Class E airspace area is designated to extend upward from the surface with a 4.4-nautical mile radius from the airport and a ceiling of 2,600 feet MSL, aerobatic flight will not be permitted below 2,600 feet MSL within a 4.4-nautical mile radius of the airport.

7400.2C and the reviews occur before the effective date of the Airspace Reclassification final rule, the revised criteria are written in existing airspace terminology. Examples of the revised criteria include: (1) converting the lateral unit of measurement from statute miles to nautical miles; (2) conforming existing control zones to be congruent with the lateral dimensions of the surface areas of existing TCAs or ARSAs; (3) redesignating control zones to contain intended operations (not necessarily in a circular configuration); (4) redesignating the vertical limit of control zones from the surface of the earth to a specified altitude (but not to the base of the Continental Control Area); (5) establishing a policy to exclude satellite airports from control zones to the maximum extent practicable, consistent with instrument procedures and safety; and (6) replacing control zone departure extensions with transition areas.

The FAA anticipates that many control zones and associated transition areas would require minor modification. For example, a control zone could be integrated with the associated TCA or ARSA (Class B or Class C airspace area) or a control zone could become either a Class D airspace area or a Class E airspace area that extends upward from the surface.

The reviews will include control zones where a significant change in the current airspace structure is expected. For example, a control zone that extends beyond the perimeter of the associated TCA or ARSA and could require modification of the associated TCA or ARSA (Class B or Class C airspace area). The reviews will also include transition areas not associated with control zones and offshore airspace. Proposed changes that result from these reviews will be promulgated using normal rulemaking procedures.

The reviews could also result in the expansion of controlled airspace. These actions could affect airspace areas associated with non-Federal control towers. Any expansion of controlled airspace will be proposed in future NPRMs.

All necessary changes to the airspace structures are scheduled to be completed by September 16, 1993, the effective date of the Airspace Reclassification final rule.

Changes to the NPRM

This final rule includes several nonsubstantive editorial changes made to NPRM No. 89-28. Changes are also included in this final rule to certain FAR sections that were not included in NPRM No. 89-28 but require changes in terminology to be consistent with the amendments. Three additional subparts in Part 93 are deleted because the rules will not be necessary under airspace reclassification. The sections and subparts, with an explanation of the changes made to them, follow.

SFAR 51-1: The reference to "Terminal Control Area (TCA)" in Section 1 is replaced with "Class B airspace area." The reference to § 91.105(a) in Section 2(a) is replaced with § 91.155(a). The reference to § 91.24(b) in Section 2(b) is replaced with § 91.215(b). The phrase "meet the equipment requirements" in Section 2(b) is replaced with "be equipped as." The reference to § 91.90(a) and § 91.90 in Section 3 is replaced with § 91.131(a) and § 91.131.

SFAR 60: The references to "terminal control area" and "airport radar service area" in Section 3a are replaced with "Class B airspace area" and "Class C airspace area." The phrase "terminal and en route airspace" in Section 3a is replaced with "class of controlled airspace."

SFAR 62: The two references to "terminal control area" in Section 1(a) are replaced with "Class B airspace area." The references to the "Tri-Area TCA" in Section 2(24) and (25) are replaced with "Tri-Area Class B airspace area."

§ 45.22(a)(3)(i): The phrase "the designated airport control zone of the takeoff airport, or within 5 miles of that airport if it has no designated control zone" is replaced with "the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for the takeoff airport, or within 4.4 nautical miles of that airport if it is within Class G airspace."

§ 61.95: All references to "terminal control area" in the title and paragraphs (a), (a)(1), (a)(2), (a)(3), and (b) are replaced with "Class B airspace" or "Class B airspace area."

§ 91.205. The references to §§ 91.127, 91.129, 91.130, 91.131, and 91.135 are replaced with the titles to become effective September 16, 1993, and a reference is added to § 91.126.

§ 93.1(b): The reference to § 93.113, which is to be deleted as of September 16, 1993, is deleted.

Subpart N, Part 93: This subpart on the airport traffic area at the Sabre U.S. Army Heliport (Tennessee) is removed and reserved. On September 16, 1993, this airspace will become a Class D airspace area.

Subpart O, Part 93: This subpart on the Navy airport traffic area at Jacksonville, Florida, is removed and reserved. On September 16, 1993, this airspace will become three separate but adjoining Class D airspace areas.

Subpart R, Part 93: This subpart on the Special Air Traffic Rules at El Toro, California, is removed and reserved. On September 16, 1993, this airspace will become a part of the El Toro Class C airspace area.

§ 135.205(b): The reference to "uncontrolled airspace" is replaced with "Class G airspace." The reference to "control zones" is replaced with "within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport."

§ 139.323(a): The reference to "terminal control area" is replaced with "Class B airspace area."

§ 171.9(e)(1) and (e)(2): All references to "air traffic control areas" are replaced with "controlled airspace."

§ 171.29(d)(1) and (d)(2): All references to "air traffic control areas" are replaced with "controlled airspace."

§ 171.159(e)(1) and (e)(2): Both references to "air traffic control areas" are replaced with "controlled airspace." The reference to "air traffic control zones or areas" is replaced with "controlled airspace."

§ 171.209(d): Both references to "air traffic control areas" are replaced with "controlled airspace." The reference to "air traffic control zones or areas" is replaced with "controlled airspace."

§ 171.323(i): The reference to "air traffic control areas" is replaced with "controlled airspace." The reference to "air traffic control zones or areas" is replaced with "controlled airspace."

Obsolete Dates

Obsolete dates have been removed from §§ 91.215(b)(2), (b)(4), and (b)(5)(ii). Section 91.215(b)(5)(i)(A) is obsolete and is deleted. Section 91.215(b)(5)(i)(B) is incorporated into existing § 91.215(b)(5)(i).

Regulatory Evaluation Summary

This section summarizes the full regulatory evaluation prepared by the FAA that provides more detailed estimates of the economic consequences of this final rule regulatory action. This summary and the full evaluation quantify, to the extent practicable, estimated costs to the private sector, consumers, Federal, State and local governments, as well as anticipated benefits.

Executive Order 12291, dated February 17, 1981, directs Federal agencies to promulgate new regulations or modify existing regulations only if potential benefits to society for each regulatory change outweigh potential costs. The order also requires the preparation of a Regulatory Impact Analysis of all major rules except those responding to emergency situations or other narrowly defined exigencies. A major rule is one that is likely to result in an annual effect on the economy of \$100 million or more, a major increase in consumer costs, a significant adverse effect on competition, or one that is highly controversial.

The FAA has determined that this rule is not major as defined in the executive order. Therefore, a full regulatory *analysis*, that includes the identification and evaluation of cost reducing alternatives

designations, standardize equipment requirements and associate appropriate pilot certification requirements as well as certain other requirements associated with each proposed airspace designation. These changes are based primarily on recommendations from a National Airspace Review (NAR) task group and will ultimately allow for increased safety and efficiency in the U.S. airspace and air traffic control system.

Costs

The FAA estimates the total incremental cost that will accrue from the implementation of this final rule to be \$1.9 million (discounted, in 1990 dollars). Virtually all cost, which is expected to be incurred by the FAA, will accrue from revisions to aeronautical charts, re-education of the pilot community, and revision of air traffic controller training courses. Each one of these factors is briefly discussed below:

1. Revisions to Aeronautical Charts

A significant cost impact associated with this rule will result from the requirement to change aeronautical charts. These modifications will be incorporated during the regular updating and printing of the charts. Therefore, all costs associated with printing aeronautical charts are assumed to be normal costs of doing business. However, because of dimension and symbol changes that will be needed, the plates used to print the charts will need to be changed, and this will affect most of the aeronautical charts printed.

The total cost of revisions to all charts is estimated by the National Ocean Service based on the summation of the costs of revising each class of the airspace. The total discounted cost is estimated to be \$1.2 million.

2. Revision of Air Traffic Training Courses

Manuals, textbooks, and other training materials used to educate FAA controllers will need to be updated to reflect the airspace reclassification. According to the FAA Aeronautical Center in Oklahoma City, lesson plans, visual aids, handouts, laboratory exercises, and tests will need to be revised.

The cost of these revisions is determined by multiplying the total revision time by the hourly cost of the course manager making the changes. The course managers are level GS-14 (step 5) employees with an average loaded annual salary of \$72,000. Assuming 2,080 hours per year, their average loaded hourly salary is \$35. The cost of the course changes is estimated to be \$43,000 (discounted). An additional cost of \$10,000 (discounted) will accrue as the result of a one-week seminar and associated travel. This seminar will be necessary to educate course managers about the airspace reclassification. The total cost that will accrue from this factor is estimated to be \$43,000 (discounted).

3. Re-education of the Pilot Community

Pilots who are presently certificated to operate in the U.S. airspace will need to become familiar with the airspace reclassification as the result of this rule. This task will be accomplished through a variety of publications, videotapes, and pilot meetings.

The FAA is considering the production of a videotape that will be provided as a public service to industry associations, such as AOPA, ALPA, and NBAA, to inform them of the airspace reclassification. This videotape could be shown at various association meetings to help re-educate the pilot community. The FAA's Office of Public Affairs estimates that the film will be 20 to 25 minutes long and could be produced at a cost of \$75,000 (discounted).

The FAA is also considering the publication of an advisory circular (AC) which will document the new airspace classifications. The AC will be mailed to each registered pilot. It is estimated that one man-week at a level GS-14 (Step 5) will be required to draft the AC and obtain approval in the sponsoring organization, and one GS-14 man-week will be required to obtain FAA approval of the AC. The cost associated with 2 man-weeks at a level GS-14 needed to prepare the AC is estimated

This final rule is expected to generate benefits in the form of enhanced safety and operational efficiency to the aviation community. These benefits are briefly described, in qualitative terms, below:

1. Increased Safety Due to Better Understanding and Simplification

The FAA believes that the simplified classification in this rule will reduce airspace complexity and thereby enhance safety. This airspace reclassification mirrors the new ICAO airspace designations, except there will not be a U.S. Class F airspace.

This rule also will increase safety in the U.S. since foreign pilots operating aircraft in U.S. airspace will be familiar with the airspace designations and classification system.

Another simplification which is expected to help increase airspace safety is the change that will correlate the class of controlled airspace currently termed a control zone to the airspace of the surrounding area. Currently, several types of airspace are designated around an airport, which makes it difficult for pilots and controllers to determine how the areas are classified and which requirements apply. After the reclassification, the terminology will be more explanatory.

The conversion of statute mile designations to nautical mile designations is intended to further simplify operations. Since the instruments on-board the aircraft are calibrated in nautical miles and aviation charts have representations in nautical miles, this change will eliminate the need for pilots to convert between nautical and statute miles. This simplification will help pilots and controllers to be better able to understand the airspace designations in Part 71.

2. Reduced Minimum Distance from Cloud Requirement

This airspace reclassification will designate TCAs as Class B airspace areas. The VFR minimum distance from clouds requirement in this airspace will also change. Currently this distance is 500 feet below, 1,000 feet above, and 2,000 feet horizontal. In Class B airspace, the rule will require that the minimum distance from clouds be "clear of clouds." This change will afford VFR traffic increased opportunities to fly in Class B airspace in more types of weather than they currently have in a TCA. Furthermore, there will be reduced requests for deviation from ATC instruction to maintain cloud clearance. This action will not threaten safety since all aircraft operating in Class B airspace are provided with the appropriate separation.

3. Operation Of Ultralight Vehicles

This rule incorporates NAR task group 1-7.2 recommendations and changes Part 103 to correspond to the new airspace designations found in Part 71. There will be no decrease in safety because there is not change in the type of airspace in which ultralights are permitted to fly or operate.

Conclusion

Despite the fact that benefits are *not* quantifiable in monetary terms, the FAA, nonetheless, concludes that the benefits of this rule are expected to outweigh its expected costs.

International Trade Impact Assessment

Since this rule will not affect airspace outside the United States for which the United States is responsible, it is not expected to impose any new operating requirement in that airspace. As such, it will have no effect on the sale of foreign aviation products or services in the United States, nor will it affect the sale of U. S. products or services in foreign countries.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by government regulations. The RFA requires agencies

FEDERALISM IMPLICATIONS

The amendments in this final rule will not have substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that these amendments will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

PAPERWORK REDUCTION ACT

In accordance with the Paperwork Reduction Act of 1980 (Pub L. 96-511), there are no requirements for information collection associated with this rule.

CONCLUSION

For reasons discussed in the preamble, and based on the findings in the Regulatory Evaluation Determination and the International Trade Impact Analysis, the FAA has determined that these amendments do not qualify as a major rule under Executive Order 12291. In addition, the FAA certifies that these amendments will not have a significant economic effect on a substantial number of small business entities under the criteria of the Regulatory Flexibility Act. These amendments are considered significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A regulatory evaluation of these amendments, including a Regulatory Flexibility Determination and Trade Impact Analysis, has been placed in its entirety in the regulatory docket. A copy may be obtained by contacting the person identified under *"FOR FURTHER INFORMATION CONTACT."*

CROSS REFERENCE

To identify where existing regulations for Part 75 are relocated in existing Part 71, the following cross reference lists are provided:

CROSS REFERENCE TABLE

Old Section	New Section
75.1	71.601
75.11	71.603
75.13	71.605
75.17	Deleted
75.100	71.607
75.400	71.609
New Section	Old Section
71.601	75.1
71.603	75.11
71.605	75.13
71.607	75.100
71.609	75.400

To identify where existing regulations for Part 71 are relocated in the rule to be effective September 16, 1993, or if the regulations will be relocated in FAA Order 7400.9, the following cross reference lists are provided:

71.9	71.71
71.11	Deleted
71.12	71.41
71.13	71.71
71.14	71.51
71.15	71.31
71.17	71.5
71.19	71.7
71.101	Subpart E of FAA Order 7400.9
71.103	Subpart E of FAA Order 7400.9
71.105	Subpart E of FAA Order 7400.9
71.107	Subpart E of FAA Order 7400.9
71.109	Subpart E of FAA Order 7400.9
71.121	71.79
71.123	Subpart E of FAA Order 7400.9
71.125	Subpart E of FAA Order 7400.9
71.127	Subpart E of FAA Order 7400.9
71.151	Subpart E of FAA Order 7400.9
71.161	71.71 and Subpart E of FAA Order 7400.9
71.163	71.71 and Subpart E of FAA Order 7400.9
71.165	Subpart E of FAA Order 7400.9
71.171	Subpart D or E of FAA Order 7400.9
71.181	Subpart E of FAA Order 7400.9
71.193	71.33
71.201	71.901
71.203	Subpart H of FAA Order 7400.9
71.207	Subpart H of FAA Order 7400.9
71.209	Subpart H of FAA Order 7400.9
71.211	Subpart H of FAA Order 7400.9
71.213	Subpart H of FAA Order 7400.9
71.215	Subpart H of FAA Order 7400.9
71.301	Subpart E of FAA Order 7400.9
71.401	Subpart B of FAA Order 7400.9
71.501	Subpart C of FAA Order 7400.9
71.601	Deleted
71.603	Subpart A of FAA Order 7400.9
71.605	Subpart A of FAA Order 7400.9
71.607	Subpart A of FAA Order 7400.9
71.609	Subpart A of FAA Order 7400.9

New Section

71.1
71.5
71.7
71.9
71.31
71.33
71.41
71.51
71.61
71.71
71.73
71.75
71.77
71.79
71.901

Old Section

71.1
71.17
71.19
New
71.15
71.193
71.12
71.14
New
71.9, 71.13, 71.161, 71.163
71.3
71.5
71.6
71.121
71.201

Subpart C	71.301
Subpart D or Subpart E	71.171
Subpart E	71.101
Subpart E	71.103
Subpart E	71.105
Subpart E	71.107
Subpart E	71.109
Subpart E	71.123
Subpart E	71.125
Subpart E	71.127
Subpart E	71.151
Subpart E	71.161
Subpart E	71.163
Subpart E	71.165
Subpart E	71.181
Subpart E	71.301
Subpart H	71.203
Subpart H	71.207
Subpart H	71.209
Subpart H	71.211
Subpart H	71.213
Subpart H	71.215

The Rule

In consideration of the foregoing, the Federal Aviation Administration amends SFAR 51-1, SFAR 60, SFAR 62, Parts 1, 11, 45, 61, 65, 71, 75, 91, 93, 101, 103, 105, 121, 127, 135, 137, 139, and 171 of Federal Aviation Regulations (14 CFR Parts 1, 11, 45, 61, 65, 71, 75, 91, 93, 101, 103, 105, 121, 127, 135, 137, 139, and 171).

The authority citation for Part 105 is revised to read as follows:

Authority: 49 U.S.C. App. 1348, 1354, and 1421; 49 U.S.C. 106(g).

descent.
(a) This part prescribes rules governing parachute jumps made in the United States except parachute jumps necessary because of an inflight emergency.

(c) This subpart does not apply to a parachute jump necessary to meet an emergency on the surface, when it is made at the direction, or with the approval, of an agency of the United States, or of a State, Puerto Rico, the District of Columbia, or a possession of the United States, or of a political subdivision of any of them.

(c) Sections 105.13 through 105.17 and §§ 105.27 through 105.37 of this subpart do not apply to a parachute jump made by a member of an Armed Force:

(1) Over or within a restricted area when that area is under the control of an Armed Force; or

(2) In military operations in uncontrolled airspace.

(d) Section 105.23 does not apply to a parachute jump made by a member of an Armed Force within a restricted area that extends upward from the surface when that area is under the control of an Armed Force.

(Amdt. 105-4, Eff. 9/21/68)

§ 105.13 General.

No person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft, if that jump creates a hazard to air traffic or to persons or property on the surface.

§ 105.14 Radio equipment and use requirements.

(a) Except when otherwise authorized by ATC—

(1) No person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft, in or into controlled airspace unless, during that flight—

service station at least 5 minutes before the jumping activity is to begin, for the purpose of receiving information in the aircraft about known air traffic in the vicinity of the jumping activity; and

(iii) The information described in paragraph (a)(1)(ii) of this section has been received by the pilot in command and the jumpers in that flight; and

(2) The pilot in command of an aircraft used for any jumping activity in or into controlled airspace shall, during each flight—

(i) Maintain or have maintained a continuous watch on the appropriate frequency of the aircraft's radio communications system from the time radio communications are first established between the aircraft and ATC, until he advises ATC that the jumping activity is ended from that flight; and

(ii) Advise ATC that the jumping activity is ended for that flight when the last parachute jumper from the aircraft reaches the ground.

(b) If, during any flight, the required radio communications system is or becomes inoperative, any jumping activity from the aircraft in or into controlled airspace shall be abandoned. However, if the communications system becomes inoperative in flight after receipt of a required ATC authorization, the jumping activity from that flight may be continued.

(Amdt. 105-2, Eff. 3/24/67)

§ 105.15 Jumps over or into congested areas or open air assembly of persons.

(a) No person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft, over or into a congested area of a city, town, or settlement, or an open air assembly of person unless

and in a manner prescribed by the Administrator and must be submitted to the FAA Flight Standards District Office having jurisdiction over the area in which the parachute jump is to be made, at least 4 days before the day of that jump.

(c) Each holder of a certificate of authorization issued under this section shall present that certificate for inspection upon the request of the Administrator, or any Federal, State, or local official.

(Amdt. 105-1, Eff. 12/4/64); (Amdt. 105-7, Eff. 6/26/78)

§ 105.17 Jumps over or onto airports.

Unless prior approval has been given by the airport management, no person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft—

(a) Over an airport that does not have a functioning control tower operated by the United States; or

(b) Onto any airport.

However, a parachutist may drift over that airport with a fully deployed and properly functioning parachute if he is at least 2,000 feet above that airport's traffic pattern, and avoids creating a hazard to air traffic or to persons and property on the ground.

Docket No. 4057 (29 FR 14920) Eff. 11/4/64; (Amdt. 105-1, Eff. 12/4/64)

§ 105.19 Jumps in or into control zones with functioning control towers operated by the United States.

(a) No person may make a parachute jump, and no pilot in command may allow a parachute jump to be made from that aircraft, in or into a control zone in which there is a functioning control tower operated by the United States without, or in violation of the terms of, an authorization issued under this section.

(b) Each request for an authorization under this section must be submitted to the control tower having jurisdiction over the control zone concerned

Class A, Class B, Class C, and Class D airspace without, or in violation of, the terms of an ATC authorization issued under this section.

[(b) Each request for an authorization under this section must be submitted to the nearest FAA air traffic control facility or FAA flight service station and must include the information prescribed by § 105.25(a).]

[(Amdt. 105-10, Eff. 9/16/93)]

§ 105.20 Jumps in or into airport radar service areas.

(a) No person may make a parachute jump and no pilot in command may allow a parachute jump to be made from that aircraft in or into an airport radar service area without, or in violation of, the terms of an ATC authorization issued under this section.

(b) Each request for an authorization under this section must be submitted to the control tower at the airport for which the airport radar service area is designated.

[\$ 105.20 Removed and Reserved]

[Docket No. 23708 (50 FR 9259) Eff. 3/6/85; (Amdt. 105-8, Eff. 3/14/85); [(Amdt. 105-10, Eff. 9/16/93)]]

§ 105.21 Jumps into or within positive control areas and terminal control areas.

(a) No person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft, in or into a positive control area or terminal control area without, or in violation of, an authorization issued under this section.

(b) Each request for an authorization issued under this section must be submitted to the nearest FAA air traffic control facility or FAA flight service station and must include the information prescribed by § 105.25(a).

or into airspace unless the nearest FAA air traffic control facility or FAA flight service station was notified of that jump at least 1 hour before the jump is to be made, but not more than 24 hours before the jumping is to be completed, and the notice contained the information prescribed in § 105.25(a).

(b) Notwithstanding paragraph (a) of this section, ATC may accept from a parachute jumping organization a written notification of a scheduled series of jumps to be made over a stated period of time not longer than 12 calendar months. The notification must contain the information prescribed by § 105.25(a), identify the responsible persons associated with that jumping activity, and be submitted at least 15 days, but not more than 30 days, before the jumping is to begin. ATC may revoke the acceptance of the notification for any failure of the jumping organization to comply with its terms.

(c) This section does not apply to parachute jumps in or into any airspace or place described in § 105.15, § 105.19, or § 105.21.

(Amdt. 105-2, Eff. 3/24/67)

§ 105.25 Information required, and notice of cancellation or postponement of jump.

(a) Each person requesting an authorization under § 105.19 or § 105.21, and each person submitting a notice under § 105.23, must include the following information (on an individual or group basis) in that request or notice:

(1) The date and time jumping will begin.

(2) The size of the jump zone expressed in nautical mile radius around the target.

(3) The location of the center of the jump zone in relation to—

(i) The nearest VOR facility in terms of the VOR radial on which it is located, and its distance in nautical miles from the VOR facility when that facility is 30 nautical miles or less from the drop zone target; or

(ii) The nearest airport, town, or city depicted on the appropriate Coast and Geodetic

ing notice.

(7) The identification of the aircraft to be used.

(8) The radio frequencies, if any, available in the aircraft.

(b) Each person requesting an authorization under § 105.19 or § 105.21, and each person submitting a notice under § 105.23, must promptly notify the FAA air traffic control facility or FAA flight service station from which it requested authorization or which it notified, if the proposed or scheduled jumping activity is canceled or postponed.

(Amdt. 105-2, Eff. 3/24/67); (Amdt. 105-6, Eff. 11/26/76); (Amdt. 105-9, Eff. 7/19/86)

§ 105.27 Jumps over or within restricted or prohibited areas.

No person may make a parachute jump, and no pilot in command may allow a parachute jump to be made from that aircraft, over or within a restricted area or prohibited area unless the controlling agency of the area concerned has authorized that jump.

§ 105.29 Flight visibility and clearance from clouds requirements.

No person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft—

(a) Into or through a cloud; or

(b) When the flight visibility is less, or at a distance from clouds that is less, than that prescribed in the following table:

Altitude	Flight visibility (statute miles)	Distance from clouds
(1) 1,200 feet or less above the surface regardless of the MSL altitude.	3	500 feet below. 1,000 feet above. 2,000 feet horizontal.

surface and at or
above 10,000 feet
MSL.

mile horizontal.

(Amdt. 105-1, Eff. 12/4/64); (Amdt. 105-5, Eff. 6/12/71)

§ 105.33 Parachute jumps between sunset and sunrise.

(a) No person may make a parachute jump, and no pilot in command of an aircraft may allow any person to make a parachute jump from that aircraft, between sunset and sunrise, unless that person is equipped with a means of producing a light visible for at least 3 statute miles.

No person may make a parachute jump while, and no pilot in command of an aircraft may allow a person to make a parachute jump from that aircraft if that person appears to be:

- (a) Under the influence of intoxicating liquor; or
- (b) Using any drug that affects his faculties in any way contrary to safety.

§ 105.37 Inspections.

The Administrator may inspect (including inspections at the jump site), any parachute jump operation to which this part applies, to determine compliance with the regulations of this part.

jump made by a member of an Armed Force using parachute equipment of an Armed Force.

§ 105.43 Parachute equipment and packing requirements.

(a) No person may make a parachute jump, and no pilot in command of an aircraft may allow any person to make a parachute jump from that aircraft, unless that person is wearing a single harness dual parachute pack, having at least one main parachute and one approved auxiliary parachute that are packed as follows:

(1) The main parachute must have been packed by a certificated parachute rigger, or by the person making the jump, within 120 days before the date of its use.

(2) The auxiliary must have been packed by a certificated and appropriately rated parachute rigger:

(i) Within 120 days before the date of use, if its canopy, shroud, and harness are composed exclusively of nylon, rayon, or other similar synthetic fiber or material that is substantially resistant to damage from mold, mildew, or other fungi and other rotting agents propagated in a moist environment; or

(ii) Within 60 days before the date of use, if it is composed in any amount of silk, pongee, or other natural fiber, or material not specified in paragraph (a)(2)(i) of this section.

(b) No person may make a parachute jump using a static line attached to the aircraft and the main parachute unless an assist device, described and attached as follows, is used to aid the pilot chute

strength of—

(i) At least 28 pounds but not more than 160 pounds, if it is used to aid the pilot chute in performing its function; or

(ii) At least 56 pounds but not more than 320 pounds, if it is used to aid in the direct deployment of the main parachute canopy.

(3) The assist device must be attached—

(i) At one end, to the static line above the static line pins, or, if static pins are not used, above the static line ties to the parachute cone; and

(ii) At the other end, to the pilot chute apex, bridle cord or bridle loop, or, if no pilot chute is used, to the main parachute canopy.

(c) No person may attach an assist device required by paragraph (b) of this section to any main parachute unless he has a current parachute rigger certificate issued under part 65 of this chapter or is the person who makes the jump with that parachute.

(d) For the purpose of this section, an *approved* parachute is:

(1) A parachute manufactured under a type certificate or a technical standard order (C-23 series); or

(2) A personnel-carrying military parachute (other than a high altitude, high-speed, or ejection kind) identified by an NAF, AAF, or AN drawing number, an AAF order number, or any other military designation or specification number.

(Amdt. 105-3, Eff. 8/7/68); (Amdt. 105-7, Eff. 6/26/78)

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